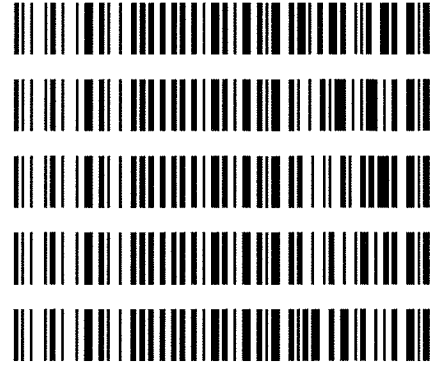


REVIEWED  
By Emily W. [unclear] on 03/27/2019

3/26/2019

**Worklist: 3157**

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>
C2019-0391	1	146192	AM 28 Blood Multi-Drug Quant Panel 1 by LC-QC
C2019-0437	1	146193	AM 28 Blood Multi-Drug Quant Panel 1 by LC-QC
C2019-0455	1	146194	AM 28 Blood Multi-Drug Quant Panel 1 by LC-QC
C2019-0457	1	146195	AM 28 Blood Multi-Drug Quant Panel 1 by LC-QC
C2019-0460	1	146196	AM 28 Blood Multi-Drug Quant Panel 1 by LC-QC



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# AM# 28: Multi-Drug Quantitation in Blood by LC-MS/MS

Extraction Date: 3/22/19

Analyst: Anne Nord

Plate lot#: 190124 (part IDP-111)

Plate Expiration: 7/24/19

**Mobile phase A:** 5mM Amm Form + 0.01% FA  
0.5M Ammonium Hydroxide

**Mobile phase B:** 0.01% Formic Acid in MeOH  
Ethyl Acetate 20% Methanol in Water

**Blank Blood Lot:** ~~am12518 negative and calibrators, baw113018 plate controls~~ A 19A207P3

**Column:** Agilent 120 EC-C18 (2.1x 100-~~4~~um) A<sup>9/18/19</sup>

**LCMS-QQQ ID:** 69679

2.7

## Pre-Analytic:

- 1. Check levels of mobile phases and needle wash refill as needed. Ensure waste is not full.
- 2. Ensure correct column is installed and begin mobile phase flow allow to equilibrate ~ 30 minutes.
- 3. Create worklist:

## Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **250µL blood (calibrated pipette) Pipette ID: 1926134** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 66759*
- 4. Pipette **250µL 00.5M ammonium hydroxide** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **300µL of blood+base** mixture to corresponding wells of SLE+ plate.
- 7. Apply positive pressure for approx. 10-15 seconds (or until no liquid remains on top of sorbent).  
*(Load at 85-100 PSI- Selector to the right) Manifold ID: 66792*
- 8. Wait 5 minutes.
- 9. Add **900uL ethyl acetate**.
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left)*.
- 12. Add **900uL ethyl acetate**.
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left)*.
- 15. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.  
*SPE Dry ID: 66819*
- 16. Reconstitute in **100µL 20% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

## Post-Analytic

- 1. Create batch and process data.  
Worklist path: MassHunter\Data\am 28 032219 Batch Name: mdq pl
- 2. Make necessary changes to integration limits
- 3. Integration linear and R<sup>2</sup> values ≥0.98 for each analyte.
- 4. For unknown samples and controls: response ratio within 20% of average of controls and standards, RT within +/- 5% (tramadol RT +/-2%), S/N for primary transition >10 and secondary transitions >5.
- 5. Did all QCs pass for each analyte? Yes, see comments Add Control data to QC tracking spreadsheet.
- 6. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports.

## COMMENTS:

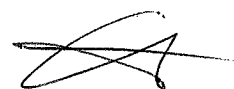
Curves limited: Norhydrocodone 5-250, amphetamine 5-100, 6-MAM .5-25, methamphetamine 5-100, norfentanyl .5-25, metoprolol 50-1000, tramadol 5-100, 7-aminoclonazepam 5-500, Doxylamine 5-500, zolpidem 5-500, Meprobamate 5-250, fentanyl .5-25, trazodone 5-100, mitragynine 5-250, quetiapine 5-100, clonazepam 25-1000, lorazepam 25-1000, Oxazepam 10-1000, buprenorphine .5-25, lamotrigine 5-100



*Not evaluated quantitatively - Ketamine, Nordiazepam, hydromorphone (Internal control out), dextromethorphan (external control low)*

*Codeine dropped calibrator 4 50ng, due to retention time shift.*

*Not evaluated Phentermine, EDDP, dihydrocodeine*

A handwritten signature in black ink, consisting of a stylized, cursive letter 'A' followed by a horizontal line extending to the right.

Toxicology AM method 28 panel 1 external prep information

working solution 10000 ng/ml in meoh amphetamine, dextromethorphan, methamphetamine, morphine, paroxetine, amitriptyline meperidine, doxepine, mirtazapine, 1000 ng/ml buprenorphine

Stock solution 1mg/ml (.1mg/ml buprenorphine ) 100 ul each in 9000 ul meOH

Ppd 3/14/19 Exp: 3/14/20 lot 31420 by AMN

Drug	lot	expiration
amphetamine	FE06011503	6/1/2020
dextromethorphan	FN07231501	7/1/2020
methamphetamine	FE08101708	10/1/2022
morphine	FE08141515	11/1/2020
buprenorphine	FE09211501	9/1/2020
paroxetine	FN05111505	6/1/2020
mirtazapine	FN04201503	4/1/2020
meperidine	FE01191502	2/1/2020 (this compound will not be evaluated in this control after 2/1/2020)
doxepine	FN01281502	2/1/2020 (this compound will not be evaluated in this control after 2/1/2020)
amitriptyline	FN07081401	9/1/2019 (this compound will not be evaluated in this control after 9/1/2019)

AM 28 control 50 ul working solution lot (31420) in 9950 ul blood lot (19A207P3)

ppd 3/14/19 Exp 3/14/2020 by AMN Concentration 50 ng/ml each (5 ng/ml buprenorphine)

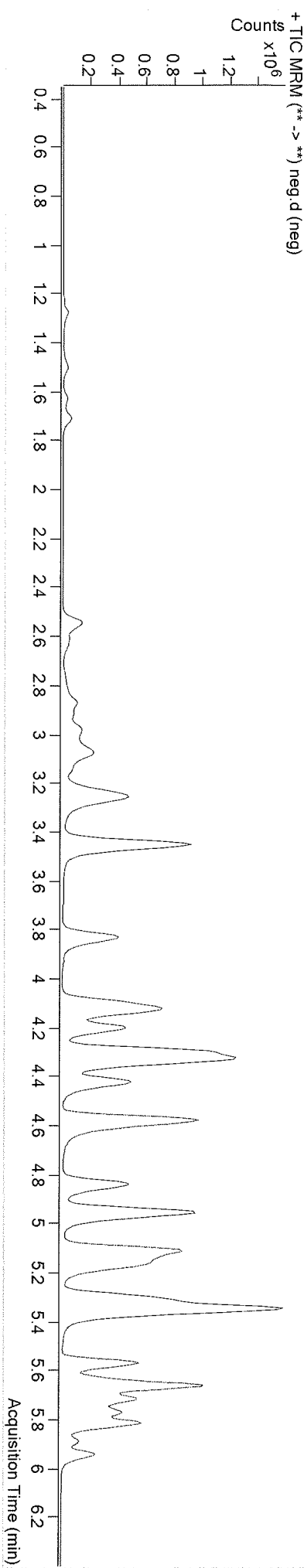


# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
Calibration Last Update 3/26/2019 2:32:23 PM  
D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin

Instrument	069697	Data File	neg.d
Type	Sample	Sample	neg
Acq. Method	mdq p1 cda 121818.m	Operator	Anne Nord
Sample Position	P2-E2	Comment	
Injection Volume	5		
Acq. Date-Time	3/22/2019 6:59:04 PM		
Sample Info.			

## Sample Chromatogram



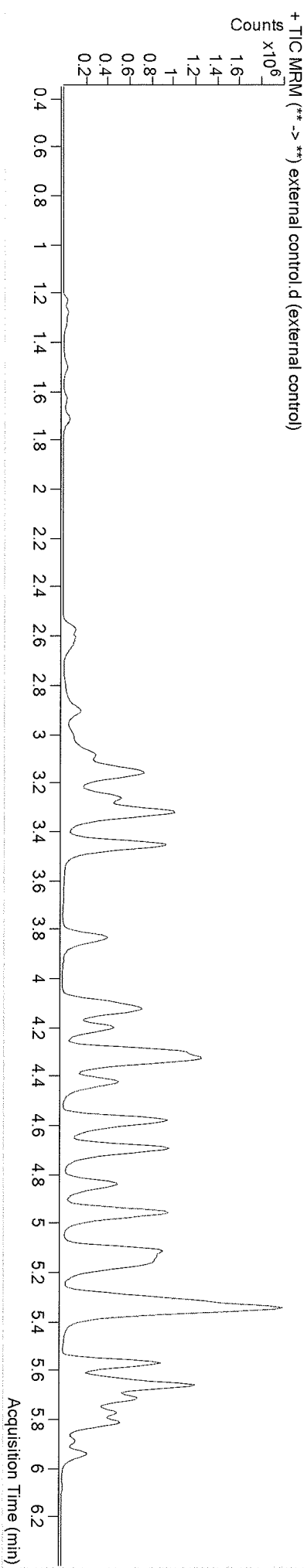
# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update 3/26/2019 2:32:23 PM  
 D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin

Instrument 069697  
 Type Sample  
 Acq. Method mdq p1 cda 121818.m  
 Sample Position P2-F2  
 Injection Volume 5  
 Acq. Date-Time 3/22/2019 7:09:43 PM  
 Sample Info.

Data File external control.d  
 Sample external control  
 Operator Anne Nord  
 Comment

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.327	25822	∞	23.5	2915	8469	37.44 ng/ml
Amphetamine	3.167	1716406	33262	55.0	5590	557329	40.33 ng/ml
Methamphetamine	3.328	1757421	2879	39.1	250	1615203	36.60 ng/ml
Mirtazapine	4.697	1981548	10824	45.7	85886	1447511	34.85 ng/ml
Dextromethorphan	5.329	728230	5976	76.0	73774	835305	39.02 ng/ml
Buprenorphine	5.834	17155	1076	17.1	803	190935	3.37 ng/ml

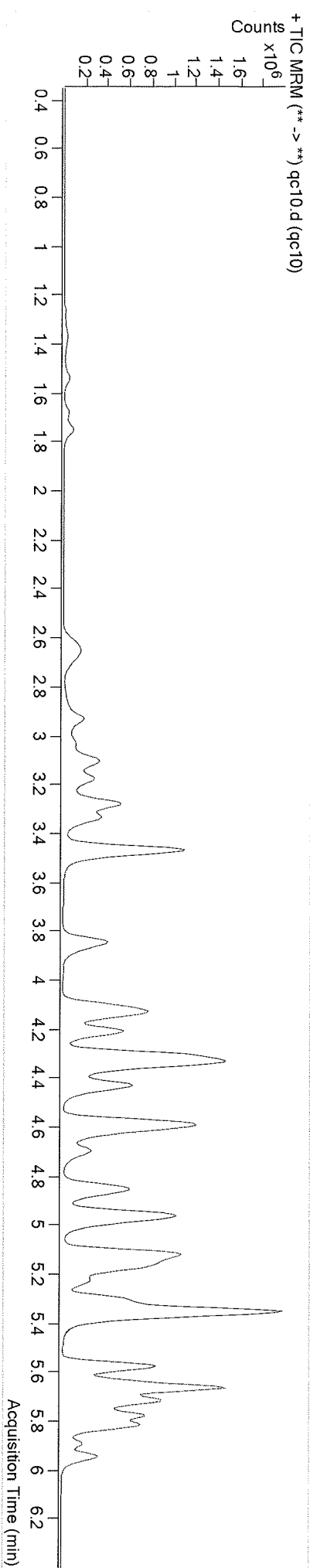
# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update 3/26/2019 2:32:23 PM  
 D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin

Instrument 069697  
 Type QC  
 Acq. Method mdq p1 cda 121818.m  
 Sample Position P2-A2  
 Injection Volume 5  
 Acq. Date-Time 3/22/2019 5:44:58 PM  
 Sample Info.

Data File qc10.d  
 Sample qc10  
 Operator Anne Nord  
 Comment

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.374	6314	104	22.6	1264	10071	7.87 ng/ml
Oxymorphone	1.545	38991	874	44.6	1028	146689	9.70 ng/ml
Hydromorphone	1.762	55585	∞	72.6	3192	186745	10.46 ng/ml
Dihydrocodeine	2.677	92934	5104	64.2	639	494657	<del>9.13 ng/ml</del> Not evaluated? *
Codeine	2.719	33022	2993	104.8	1543	152387	9.74 ng/ml
Oxycodone	2.966	136184	897	29.1	673	653862	9.03 ng/ml
Noroxycodone	3.048	69852	797	42.4	186	236309	10.66 ng/ml
Hydrocodone	3.136	90028	507	39.8	382	498913	9.64 ng/ml
Norhydrocodone	3.185	8804	79	43.3	121	153779	9.07 ng/ml
Amphetamine	3.187	453441	4319	55.1	4213	563723	10.02 ng/ml
6-MAM	3.249	4522	492	74.3	∞	157612	0.92 ng/ml
Methamphetamine	3.341	489921	55	40.0	237	1662922	9.49 ng/ml
O-desmethyl-tramadol	3.475	580528	24926	6.7	∞	2637885	10.42 ng/ml
Phentermine	3.882	139162	1746	4.7	519	1223273	<del>5.74 ng/ml</del> Not evaluated? *
Benzoylcegonine	3.978	6380	∞	8.5	21	21725	9.58 ng/ml
Ketamine	4.124	227629	1735	37.9	595	1115700	9.31 ng/ml
Norfentanyl	4.165	40225	∞	40.2	358	1547358	1.01 ng/ml
Dextroprphan	4.210	104956	6081	215.1	12280	1179209	11.00 ng/ml

# ISPFS AM #28 Multi-Drug Quant. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.318	546426	39016	3.7	291	2560162	10.21 ng/ml
Cocaine	4.342	255232	∞	42.4	3747	2352040	10.40 ng/ml
7-aminoclonazepam	4.350	96752	5612	86.9	2527	356577	9.97 ng/ml
Lamotrigine	4.407	27392	1483	86.8	1260	3838508	10.30 ng/ml
alpha-PVP	4.442	303622	12565	53.1	3785	1368567	10.55 ng/ml
Doxylamine	4.609	759463	1497	98.0	35011	3212332	9.94 ng/ml
Mirtazapine	4.704	463950	19381	44.9	7071	1368567	9.35 ng/ml
Bupropion	4.874	436283	17113	58.2	5707	1411187	10.45 ng/ml
Zolpidem	4.979	575476	58733	30.5	14706	2481882	10.41 ng/ml
Meproramate	5.003	79655	19510	29.1	2018	331836	10.30 ng/ml
Norduprenorphine	5.078	1008	1861	95.2	2872	23722	1.05 ng/ml
Venlafaxine	5.124	461304	5386	39.2	2640	2373987	10.33 ng/ml
Fentanyl	5.168	25731	2791	75.8	∞	1233075	0.97 ng/ml
Trazodone	5.229	310124	22107	79.1	9696	1254960	9.97 ng/ml
Mitragynine	5.296	40689	28862	40.6	25036	172022	7.44 ng/ml
Citalopram	5.305	243638	12271	47.5	210	1034764	10.46 ng/ml
Dextromethorphan	5.336	163471	2027	75.1	2660	838118	9.22 ng/ml
Diphenhydramine	5.364	798307	5939	34.5	5972	3838508	10.67 ng/ml
Promethazine	5.580	281390	6755	32.1	1552	1179479	10.44 ng/ml
Quetiapine	5.590	307313	6854	58.3	8266	408048	10.57 ng/ml
Cyclobenzaprine	5.642	241000	∞	11.0	626	922266	10.28 ng/ml
Methadone	5.667	512009	11944	44.9	10785	2369375	10.74 ng/ml
a-hydroxyalprazolam	5.713	17370	∞	56.5	2552	93308	10.16 ng/ml
Fluoxetine	5.714	241680	3238	9.1	13736	933517	10.26 ng/ml
Carisoprodol	5.738	142349	3340	58.8	532	699644	9.63 ng/ml
Oxazepam	5.770	60107	∞	75.2	581	260380	9.23 ng/ml
Alprazolam	5.783	155593	946	110.6	1654	515591	10.65 ng/ml
Sertaline	5.783	113468	∞	99.8	1953	496692	9.92 ng/ml
Buprenorphine	5.834	4476	151	16.1	245	172022	0.98 ng/ml
Temazepam	5.824	230978	6404	31.2	415	1066202	9.31 ng/ml
Nordiazepam	5.901	91771	2761	62.1	3056	298670	9.43 ng/ml
Diazepam	5.954	124392	3551	85.0	1892	562089	10.55 ng/ml



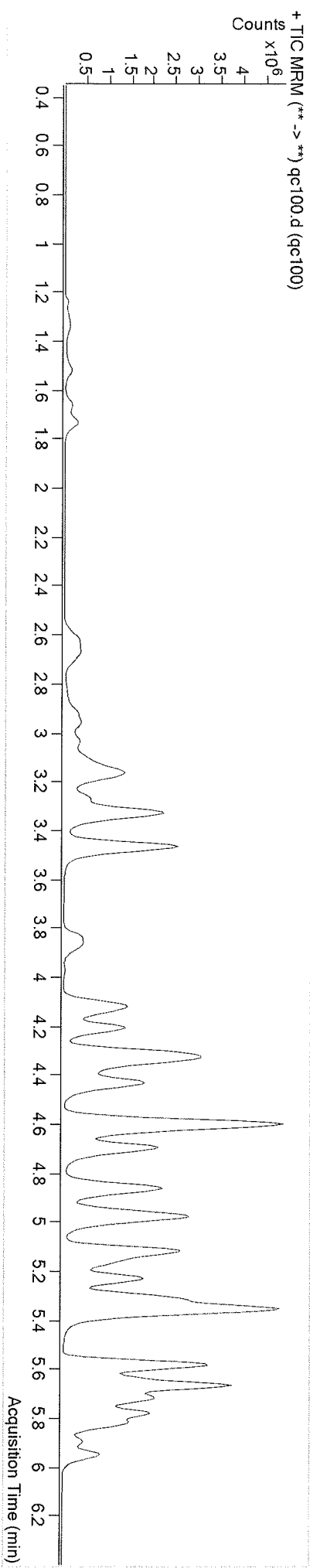
# ISPF5 AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update 3/26/2019 2:32:23 PM  
 D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin

Instrument 069697  
 Type QC  
 Acq. Method mdaq p1 cda 121818.m  
 Sample Position P2-B2  
 Injection Volume 5  
 Acq. Date-Time 3/22/2019 5:55:37 PM  
 Sample Info.

Data File qc100.d  
 Sample qc100  
 Operator Anne Nord  
 Comment

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.340	61617	∞	23.1	∞	7748	97.30 ng/ml
Oxymorphone	1.518	361010	1643	45.0	10484	139260	93.11 ng/ml
Hydromorphone	1.735	448803	∞	74.5	8708	187332	78.71 ng/ml
Dihydrocodeine	2.623	818293	45111	63.0	13841	465629	<del>105.17</del> ng/ml <i>not evaluated</i>
Codeine	2.698	276717	12306	104.0	16275	129210	91.67 ng/ml
Oxycodone	2.959	1304808	1284	29.1	1381	605417	92.28 ng/ml
Noroxycodone	3.035	563049	∞	42.3	1049	219710	90.33 ng/ml
Hydrocodone	3.122	821271	1413	39.3	528	470775	97.36 ng/ml
Norhydrocodone	3.185	97855	1528	40.9	453	143362	92.98 ng/ml
Amphetamine	3.174	3201473	64505	54.4	14981	513228	82.41 ng/ml
6-MAM	3.242	42992	∞	73.7	∞	145132	9.23 ng/ml
Methamphetamine	3.334	4061879	1473	39.2	560	1676146	82.24 ng/ml
O-desmethyl-tramadol	3.468	5215555	182643	6.4	12688	2329033	87.97 ng/ml
Phentermine	3.875	1003128	11136	4.8	2447	1109793	<del>148.64</del> ng/ml <i>not evaluated</i>
Benzoylcegonine	3.972	58581	8855	8.3	2207	21428	89.04 ng/ml
Ketamine	4.117	1983893	974478	37.3	33729	1010313	96.44 ng/ml
Norfentanyl	4.158	380677	59055	40.4	21505	1356622	9.45 ng/ml
Dextrophan	4.210	935643	71827	214.8	∞	1051110	91.55 ng/ml

# ISPF5 AM #28 Multi-Drug Quant. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.318	4489542	67555	3.5	5005	2355122	94.10 ng/ml
Cocaine	4.336	2034741	122754	42.0	308952	1896842	84.90 ng/ml
7-aminoclonazepam	4.350	565950	∞	86.4	21654	220970	90.64 ng/ml
Metoprolol	4.391	461763	26716	96.4	∞	169648	81.26 ng/ml
Lanotrigine	4.400	187494	3202	87.2	28944	3006392	90.67 ng/ml
alpha-PVP	4.442	2735322	39370	52.8	7166	1208546	84.71 ng/ml
Doxylamine	4.602	7265495	501823	97.4	796272	3087840	97.90 ng/ml
Mirtazapine	4.697	4280578	122098	45.0	26349	1208546	88.67 ng/ml
Bupropion	4.867	3846236	274644	58.8	13239	1311863	103.95 ng/ml
Zolpidem	4.979	5094263	1817012	31.0	85466	2385934	97.61 ng/ml
Meperbamate	5.003	533584	339733	29.4	9110	234050	95.42 ng/ml
Norbuprenorphine	5.078	5634	8242	100.2	8511	24398	8.77 ng/ml
Venlafaxine	5.117	4190460	24570	39.0	43019	2092115	83.47 ng/ml
Fentanyl	5.168	248697	2054	75.5	313370	1164077	9.45 ng/ml
Trazodone	5.229	2958473	∞	77.1	2791	1259661	95.72 ng/ml
Mitragynine	5.290	524178	865857	39.7	200520	169648	96.90 ng/ml
Citalopram	5.305	1773516	115599	47.8	118152	781672	89.26 ng/ml
EDDP	5.322	648551	97943	238.8	∞	867291	157.38 ng/ml
Dextromethorphan	5.336	1206975	46399	75.0	62879	626100	85.52 ng/ml
Diphenhydramine	5.364	6522647	198601	33.8	53194	3006392	86.85 ng/ml
Promethazine	5.580	3391406	10273	31.3	27965	1392214	86.21 ng/ml
Quetiapine	5.590	2337548	19093	59.5	97493	345982	94.74 ng/ml
Clonazepam	5.639	415565	5871	33.2	∞	75455	107.32 ng/ml
Cyclobenzaprine	5.642	1909065	20611	10.5	7955	729761	87.32 ng/ml
Methadone	5.673	4493205	17891	44.4	11562	2042968	91.06 ng/ml
a-hydroxyalprazolam	5.713	109738	1488	57.8	1213	65349	88.41 ng/ml
Fluoxetine	5.714	1966432	146118	9.1	97897	767995	80.95 ng/ml
Carisoprodol	5.738	989377	14106	57.1	11959	480262	90.47 ng/ml
Lorazepam	5.754	200306	∞	56.3	396	375473	106.66 ng/ml
Oxazepam	5.764	236295	∞	74.3	747	112143	86.91 ng/ml
Alprazolam	5.783	1107555	2882	109.7	3237	375473	87.19 ng/ml
Sertraline	5.783	779272	38857	102.5	5132	348762	90.73 ng/ml
Buprenorphine	5.834	44029	15929	16.1	11951	169648	9.71 ng/ml
Tenazepam	5.831	1702696	42678	30.6	6792	755840	87.91 ng/ml
Nordiazepam	5.901	602046	13276	61.8	8339	206705	88.55 ng/ml
Diazepam	5.954	947873	18235	85.2	13636	441766	92.94 ng/ml

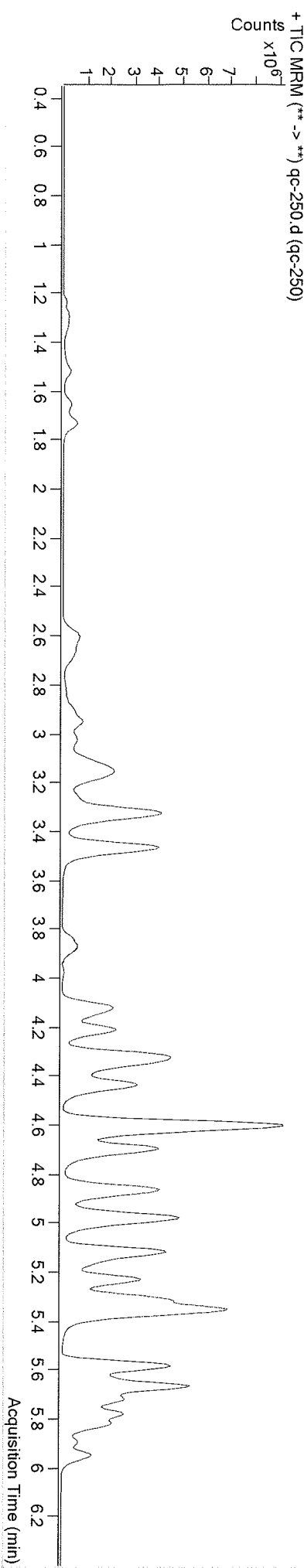
# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update 3/26/2019 2:32:23 PM  
 D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin

Instrument 069697  
 Type QC  
 Acq. Method mdq p1 cda 121818.m  
 Sample Position P2-C2  
 Injection Volume 5  
 Acq. Date-Time 3/22/2019 6:06:14 PM  
 Sample Info.

Data File qc-250.d  
 Sample qc-250  
 Operator Anne Nord  
 Comment

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.340	133837	∞	20.3	∞	7620	214.61 ng/ml
Oxymorphone	1.518	821796	4623	43.5	1457	127301	231.61 ng/ml
Hydromorphone	1.735	979800	∞	73.3	12818	152881	209.25 ng/ml
Dihydrocodeine	2.664	651862	47603	64.5	∞	416181	<del>93.48</del> ng/ml Not calculated *
Codeine	2.631	558267	∞	100.8	∞	101842	233.83 ng/ml
Oxycodone	2.952	3048660	5615	29.2	4255	558061	233.72 ng/ml
Noroxycodone	3.028	1215782	∞	38.2	2639	172008	248.65 ng/ml
Hydrocodone	3.116	1868883	∞	38.0	2655	442312	236.50 ng/ml
Norhydrocodone	3.178	213578	∞	42.0	1176	122710	234.95 ng/ml
Amphetamine	3.167	5855890	34956	53.3	18899	462580	<del>167.96</del> ng/ml outside range *
6-MAM	3.242	95232	∞	74.4	∞	125837	23.53 ng/ml
Methamphetamine	3.328	8385589	11324	38.6	1432	1638929	<del>174.27</del> ng/ml outside range *
O-desmethyl-tramadol	3.468	10716041	226504	6.3	76843	1909926	217.45 ng/ml
Phentermine	3.882	1813128	∞	4.6	2768	983446	<del>252.95</del> ng/ml not calculated *
Benzoylcegonine	3.978	131922	144633	8.0	923	19342	222.12 ng/ml
Ketamine	4.124	4015923	526279	37.2	35181	869597	227.89 ng/ml
Norfentanyl	4.165	835603	302306	40.3	3180	1060163	26.30 ng/ml
Dextroproprian	4.217	1869982	3397	216.9	∞	846001	224.30 ng/ml

# ISPF5 AM #28 Multi-Drug Quant. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.318	8621574	∞	3.4	9586	1967964	216.73 ng/ml
Cocaine	4.342	3823134	196631	41.8	74371	1415278	210.74 ng/ml
7-aminoclonazepam	4.356	765336	∞	84.6	48859	115792	233.26 ng/ml
Metoprolol	4.391	741929	76037	96.2	∞	127996	235.35 ng/ml
Lamotrigine	4.407	285051	16932	86.4	11805	2046986	<del>202.57 ng/ml</del> outside curve range
alpha-PVP	4.442	5630714	5029	52.9	45193	978222	211.60 ng/ml
Doxylamine	4.609	15354892	368522	96.3	∞	2732409	233.67 ng/ml
Mirtazapine	4.704	8346482	389464	45.0	306202	978222	212.26 ng/ml
Bupropion	4.874	7935729	678393	58.6	11754	1132399	249.26 ng/ml
Zolpidem	4.979	10557641	∞	30.3	142911	2165607	223.15 ng/ml
Meprbamate	5.010	876864	159933	29.0	12044	150951	242.70 ng/ml
Nortuprenorphine	5.078	11668	30648	101.1	23170	20161	23.03 ng/ml
Venlafaxine	5.124	8775897	515310	38.3	4919	1688877	212.59 ng/ml
Fentanyl	5.168	429966	47734	75.3	∞	754588	25.11 ng/ml
Trazodone	5.229	5503076	29282	78.2	1488	1042129	<del>215.35 ng/ml</del> outside curve range
Mitragynine	5.290	853459	213064	40.8	405239	127996	209.07 ng/ml
Citalopram	5.298	2758334	77600	47.6	∞	496548	216.61 ng/ml
EDDP	5.322	1820154	121228	242.3	33744	936783	<del>264.18 ng/ml</del> not evaluated
Dextromethorphan	5.336	1747970	53102	76.9	3698	364608	211.74 ng/ml
Diphenhydramine	5.364	11169459	∞	33.9	∞	2046986	214.51 ng/ml
Promethazine	5.580	4900217	44960	31.3	10565	812714	210.13 ng/ml
Quetiapine	5.590	4375693	259553	58.5	∞	277519	<del>221.07 ng/ml</del> outside curve range
Clonazepam	5.639	652754	47902	31.8	4094	51658	266.03 ng/ml
Cyclobenzaprine	5.642	2568870	7711	10.5	∞	399201	212.27 ng/ml
Methadone	5.673	8019715	34407	44.2	12917	1433412	228.58 ng/ml
a-hydroxyalprazolam	5.713	194349	783	59.3	625	48726	209.44 ng/ml
Fluoxetine	5.714	2403166	67487	9.1	∞	381046	196.01 ng/ml
Carisoprodol	5.738	1737379	173308	58.4	7388	340468	222.97 ng/ml
Lorazepam	5.754	309384	∞	57.3	274	275445	263.66 ng/ml
Oxazepam	5.764	310661	1352	73.4	∞	61270	209.58 ng/ml
Alprazolam	5.783	2008594	2175	110.7	∞	275445	212.72 ng/ml
Sertraline	5.790	826886	598	102.7	2217	151501	220.59 ng/ml
Buprenorphine	5.834	84568	∞	15.7	∞	127996	24.71 ng/ml
Temazepam	5.831	2961632	159558	30.7	14084	527427	217.72 ng/ml
Nordiazepam	5.901	982110	∞	61.2	39606	142359	209.61 ng/ml
Diazepam	5.954	1666334	5029	85.5	4278	313426	228.69 ng/ml

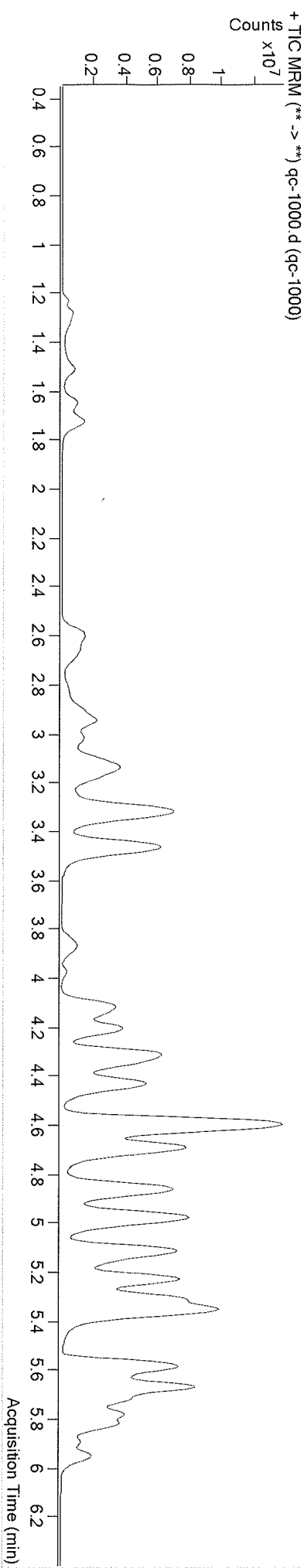
# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update  
 D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batchn.bin  
 3/26/2019 2:32:23 PM

Instrument: 069697  
 Type: QC  
 Acq. Method: mdq p1 cda 121818.m  
 Sample Position: P2-D2  
 Injection Volume: 5  
 Acq. Date-Time: 3/22/2019 6:16:52 PM  
 Sample Info.

Data File: qc-1000.d  
 Sample Operator: Anne Nord  
 Comment:

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.327	356230	1967429	24.2	∞	4039	1076.90 ng/ml
Oxymorphone	1.511	2454918	6682	44.7	5354	105729	832.63 ng/ml
Hydromorphone	1.728	2598625	∞	72.6	16801	102249	827.47 ng/ml
Dihydrocodeine	2.657	1521652	59077	64.2	34034	308138	299.80 ng/ml <i>not evaluated</i>
Codaine	2.624	1320200	∞	99.8	88168	56185	1000.62 ng/ml
Oxycodone	2.945	9681607	∞	28.9	2572	467235	886.13 ng/ml
Noroxycodone	3.021	2774599	∞	45.0	1441	120593	808.77 ng/ml
Hydrocodone	3.116	4852866	2752	40.0	∞	299137	909.39 ng/ml
Norhydrocodone	3.171	592948	1635	41.3	675	68036	1170.92 ng/ml <i>not evaluated</i>
Amphetamine	3.153	9419694	611114	53.0	97728	295241	424.37 ng/ml <i>not evaluated</i>
6-MAM	3.235	275528	33737	75.2	22583	88523	96.69 ng/ml <i>not evaluated</i>
Methamphetamine	3.325	17801045	∞	38.1	∞	1425462	426.18 ng/ml <i>not evaluated</i>
O-desmethyl-tramadol	3.470	23269271	363705	6.5	171878	1066512	839.92 ng/ml
Phentermine	3.875	3636478	∞	4.5	9285	705103	226.55 ng/ml <i>not evaluated</i>
Benzylecgonine	3.972	572956	91517	7.9	6685	19400	961.77 ng/ml
Ketamine	4.117	8770786	373174	36.9	48627	548338	791.28 ng/ml
Norfentanyl	4.158	1966181	111953	40.0	15069	504397	129.49 ng/ml <i>not evaluated</i>
Dextroproprian	4.211	4108124	152918	219.4	∞	462646	894.85 ng/ml

\* Outside curve range \*

# ISPFs AM #28 Multi-Drug Quant. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.311	15922438	∞	3.5	∞	1173104	<del>672.24</del> ng/ml * *
Cocaine	4.342	6870924	427247	41.1	154613	627761	847.71 ng/ml
7-aminoclonazepam	4.356	717420	29723	85.2	16137	24936	<del>1013.96</del> ng/ml * *
Metoprolol	4.384	1187807	122336	96.3	∞	60997	920.83 ng/ml
Lanotrigine	4.400	304471	981	87.2	51773	874508	<del>506.59</del> ng/ml * *
alpha-PVP	4.435	12180074	24115	52.6	∞	527121	841.93 ng/ml
Doxylamine	4.606	30274791	1191965	97.7	413266	1918361	<del>656.02</del> ng/ml * *
Mirtazapine	4.701	19124825	570013	46.2	400782	527121	899.49 ng/ml
Bupropion	4.869	17153335	375079	59.0	73819	734608	831.86 ng/ml
Zolpidem	4.981	22192538	43776	31.1	∞	1528165	<del>665.15</del> ng/ml * *
Meproramate	5.010	1395560	42401	29.1	63563	49374	1179.84 ng/ml
Norbuprenorphine	5.072	29653	∞	100.8	69611	14205	84.87 ng/ml
Venlafaxine	5.117	19259008	23926	38.9	174208	926147	843.34 ng/ml
Fentanyl	5.161	1408358	182418	78.7	975408	539784	<del>114.81</del> ng/ml * *
Trazodone	5.232	14317668	∞	78.6	3019	979116	<del>596.54</del> ng/ml * *
Mitragynine	5.283	1840134	119692	40.3	536161	60997	<del>945.82</del> ng/ml * *
Citalopram	5.291	3398181	∞	47.6	83316	161584	816.36 ng/ml
EDDP	5.324	5505308	312112	244.2	∞	677816	<del>816.33</del> ng/ml not evaluated *
Dextromethorphan	5.336	2334000	139809	75.9	119305	119270	862.36 ng/ml
Diphenhydramine	5.364	19304105	235648	34.6	30317	874508	859.88 ng/ml
Promethazine	5.573	11235564	616222	31.0	143193	469242	827.90 ng/ml
Quetiapine	5.597	7887324	∞	58.0	∞	166003	<del>666.16</del> ng/ml * *
Clonazepam	5.632	632316	∞	32.9	2970	16080	860.21 ng/ml
Cyclobenzaprine	5.635	4951181	193991	10.2	40890	193225	840.08 ng/ml
Methadone	5.673	16187285	220694	46.4	34003	749327	876.87 ng/ml
a-hydroxyalprazolam	5.713	389851	6341	57.3	293	21804	937.45 ng/ml
Fluoxetine	5.714	5033840	348090	8.7	645246	193732	800.37 ng/ml
Carisoprodol	5.738	2467240	269342	57.7	38474	112944	951.99 ng/ml
Lorazepam	5.754	546329	∞	57.1	∞	129659	1086.40 ng/ml
Oxazepam	5.764	513112	∞	71.8	∞	25115	845.47 ng/ml
Alprazolam	5.789	3805735	121	110.9	3914	129659	850.43 ng/ml
Setraline	5.790	1418200	31696	101.9	1320716	65470	873.37 ng/ml
Buprenorphine	5.841	188944	211499	16.7	24534	60997	<del>115.80</del> ng/ml * *
Temazepam	5.831	5820043	214657	30.1	17457	248958	903.43 ng/ml
Nordiazepam	5.901	1760843	23373	61.5	23092	68821	777.10 ng/ml
Diazepam	5.954	3164873	3725	85.3	∞	156198	868.53 ng/ml

\* outside curve range \*

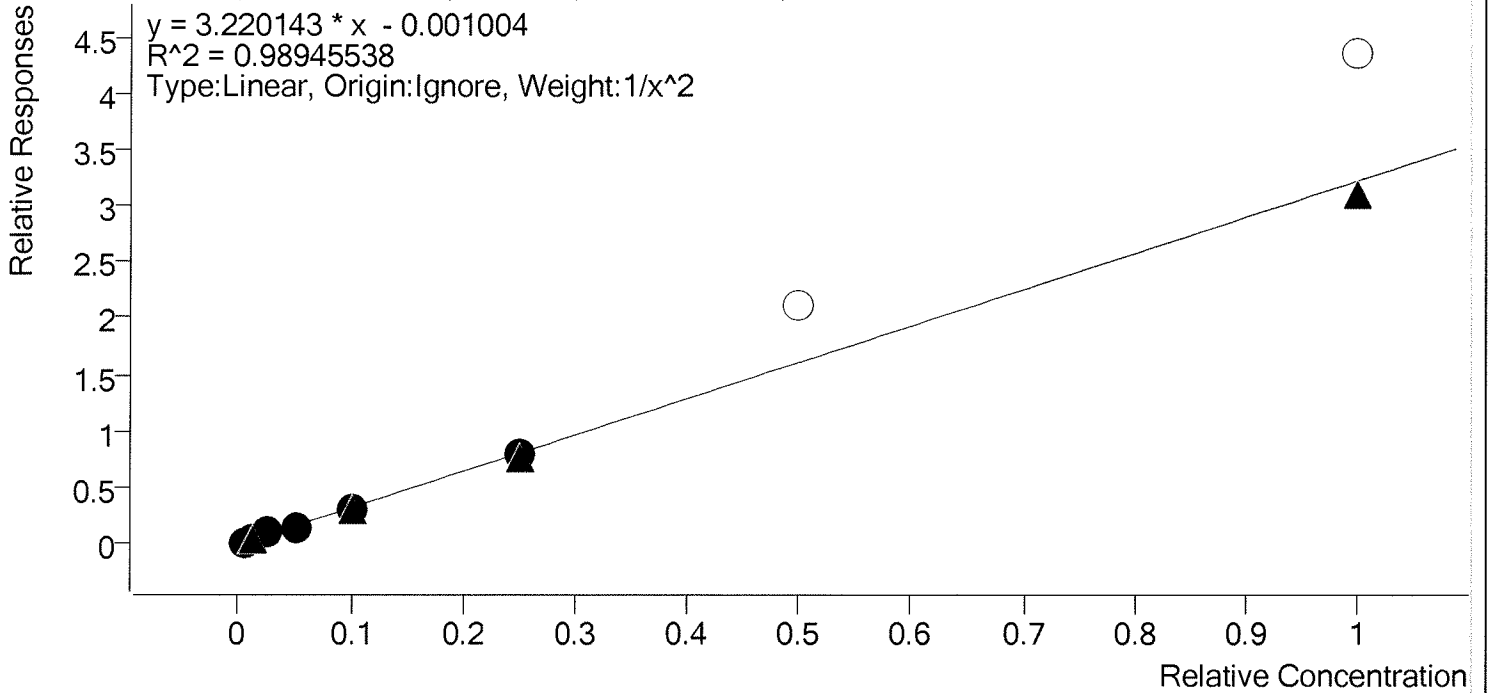
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** 6-MAM

**Internal Standard** 6-MAM-D6

6-MAM - 8 Levels, 6 Levels Used, 8 Points, 6 Points Used, 4 QCs



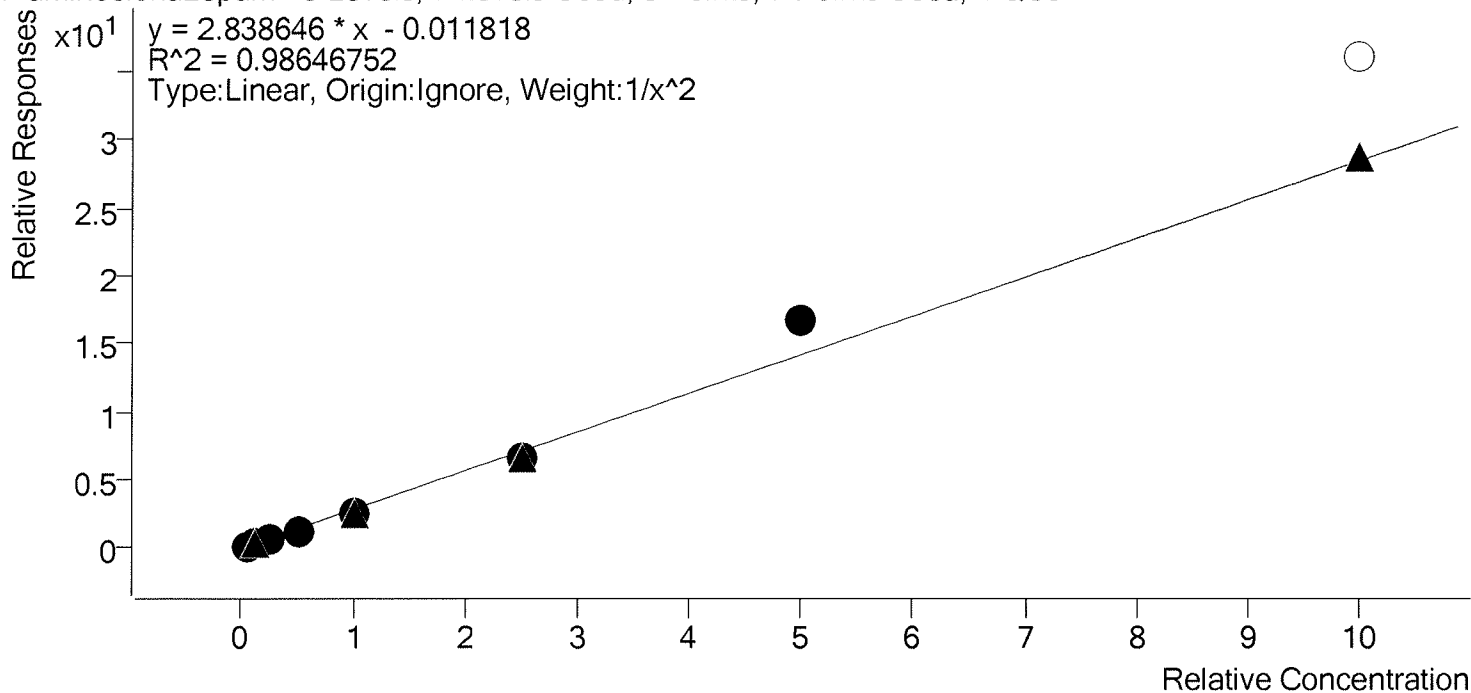
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	0.5	0.5	97.6
cal 2	2	✓	1.0	1.0	101.3
cal 3	3	✓	2.5	2.9	114.9
cal 4	4	✓	5.0	4.5	89.8
cal 5	5	✓	10.0	9.6	95.7
cal 6	6	✓	25.0	25.2	100.7
cal 7	7	×	50.0	65.4	130.8
cal 8	8	×	100.0	135.0	135.0

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** 7-aminoclonazepam **Internal Standard** 7-Aminoclonazepam-D4

7-aminoclonazepam - 8 Levels, 7 Levels Used, 8 Points, 7 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.0	100.3
cal 2	2	✓	10.0	9.8	98.4
cal 3	3	✓	25.0	27.2	108.9
cal 4	4	✓	50.0	45.2	90.5
cal 5	5	✓	100.0	91.7	91.7
cal 6	6	✓	250.0	232.3	92.9
cal 7	7	✓	500.0	586.1	117.2
cal 8	8	×	1000.0	1268.0	126.8

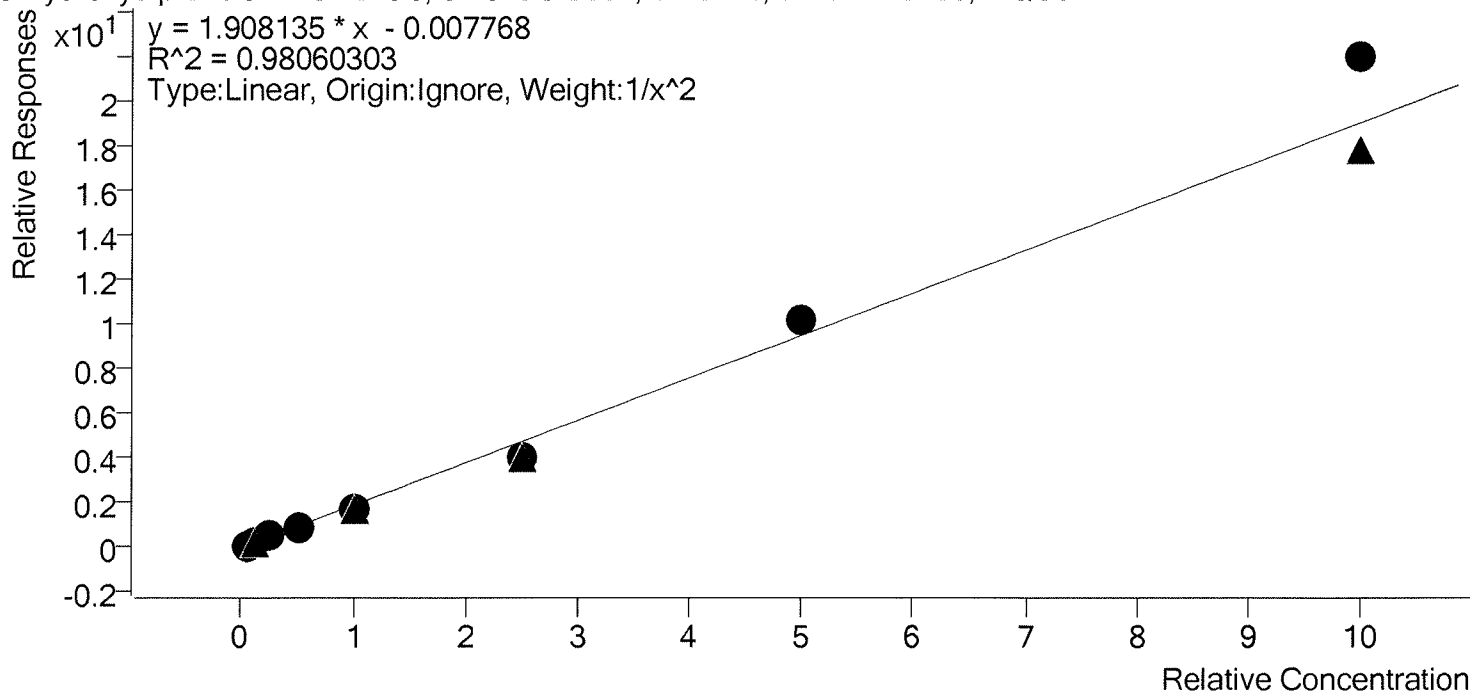


# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** a-hydroxyalprazolam **Internal Standard** a-hydroxyalprazolam-D5

a-hydroxyalprazolam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



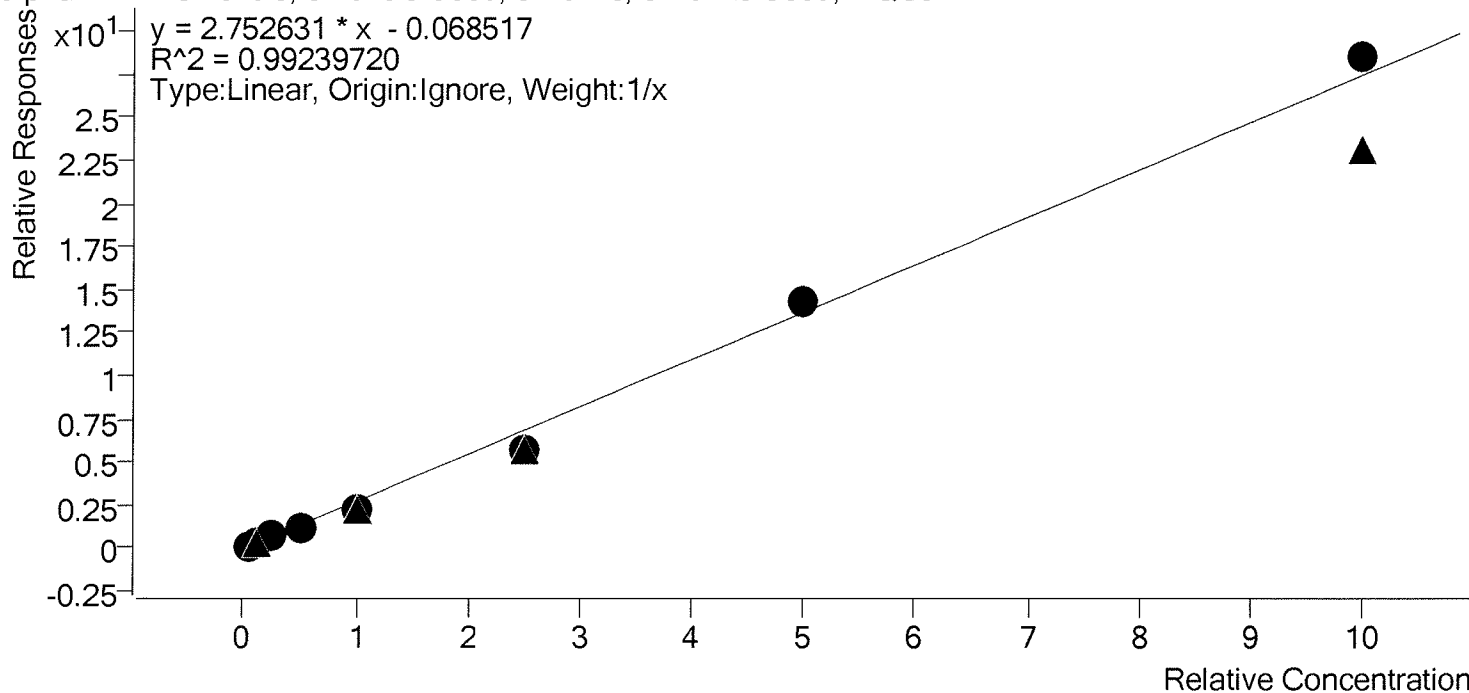
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	98.1
cal 2	2	✓	10.0	10.1	100.8
cal 3	3	✓	25.0	29.1	116.3
cal 4	4	✓	50.0	45.0	90.0
cal 5	5	✓	100.0	87.8	87.8
cal 6	6	✓	250.0	211.5	84.6
cal 7	7	✓	500.0	534.3	106.9
cal 8	8	✓	1000.0	1154.9	115.5

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** alpha-PVP **Internal Standard** alpha-PVP-d8

alpha-PVP - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



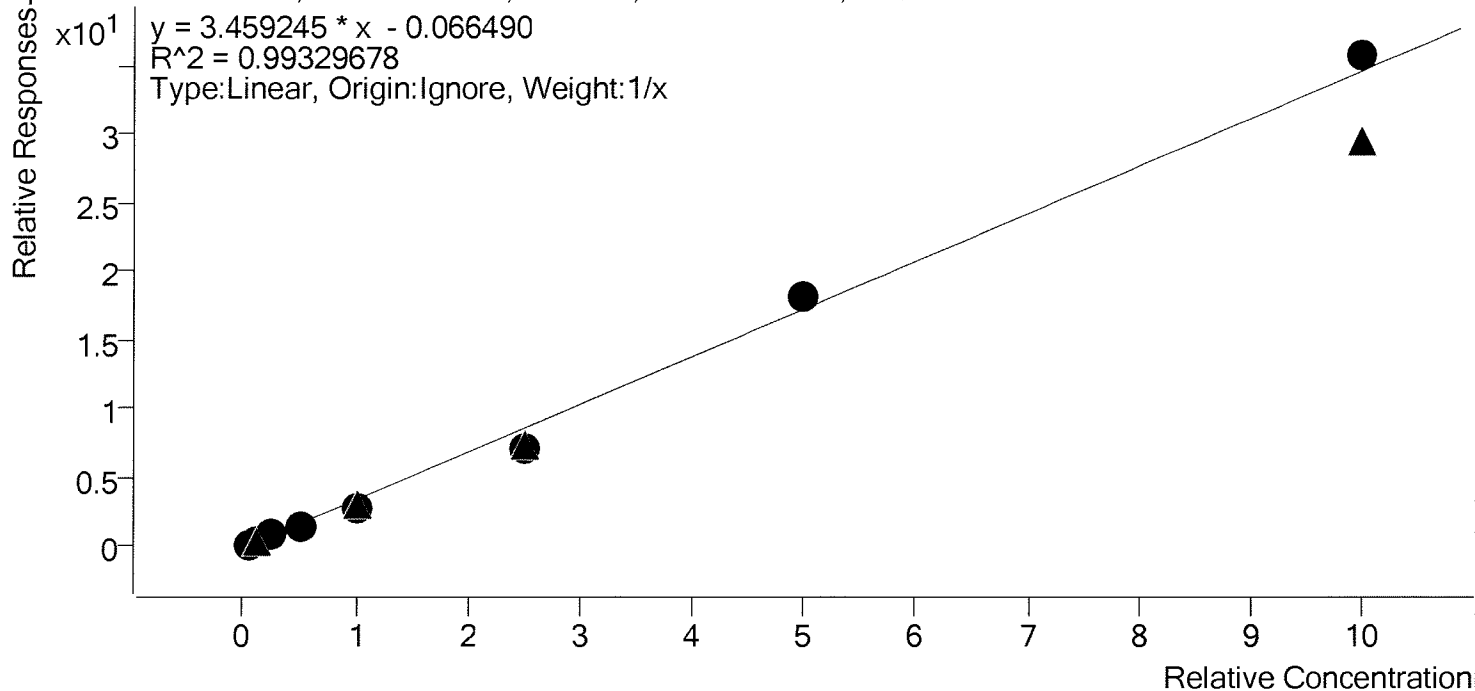
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.4	128.4
cal 2	2	✓	10.0	10.6	106.0
cal 3	3	✓	25.0	26.4	105.8
cal 4	4	✓	50.0	41.6	83.3
cal 5	5	✓	100.0	84.5	84.5
cal 6	6	✓	250.0	209.1	83.6
cal 7	7	✓	500.0	522.8	104.6
cal 8	8	✓	1000.0	1038.6	103.9

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Alprazolam **Internal Standard** Alprazolam-D5

Alprazolam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.0	120.7
cal 2	2	✓	10.0	10.4	104.0
cal 3	3	✓	25.0	27.7	111.0
cal 4	4	✓	50.0	43.0	86.0
cal 5	5	✓	100.0	86.0	86.0
cal 6	6	✓	250.0	210.4	84.2
cal 7	7	✓	500.0	524.3	104.9
cal 8	8	✓	1000.0	1032.1	103.2

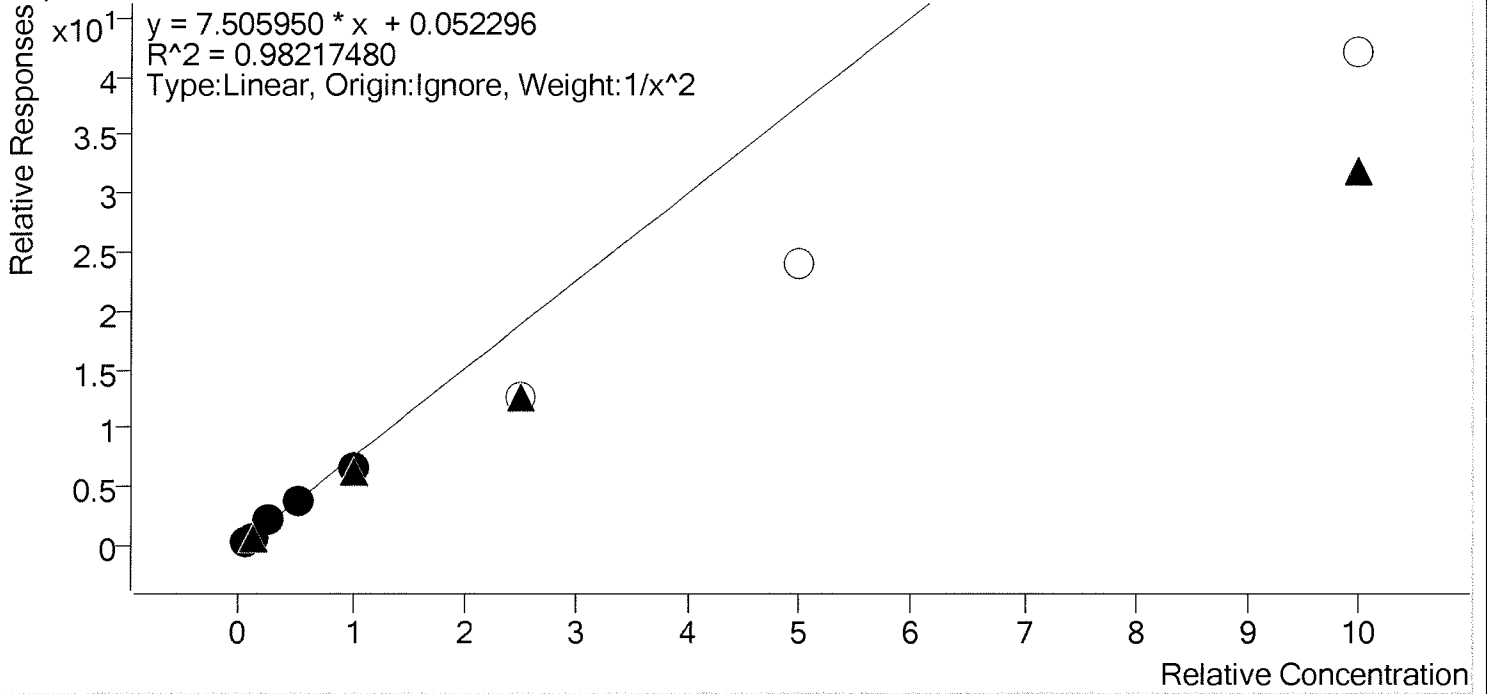
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Amphetamine

**Internal Standard** Amphetamine-D11

Amphetamine - 8 Levels, 5 Levels Used, 8 Points, 5 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.8	96.3
cal 2	2	✓	10.0	10.3	102.8
cal 3	3	✓	25.0	28.8	115.2
cal 4	4	✓	50.0	49.5	98.9
cal 5	5	✓	100.0	86.7	86.7
cal 6	6	×	250.0	168.0	67.2
cal 7	7	×	500.0	320.5	64.1
cal 8	8	×	1000.0	559.1	55.9

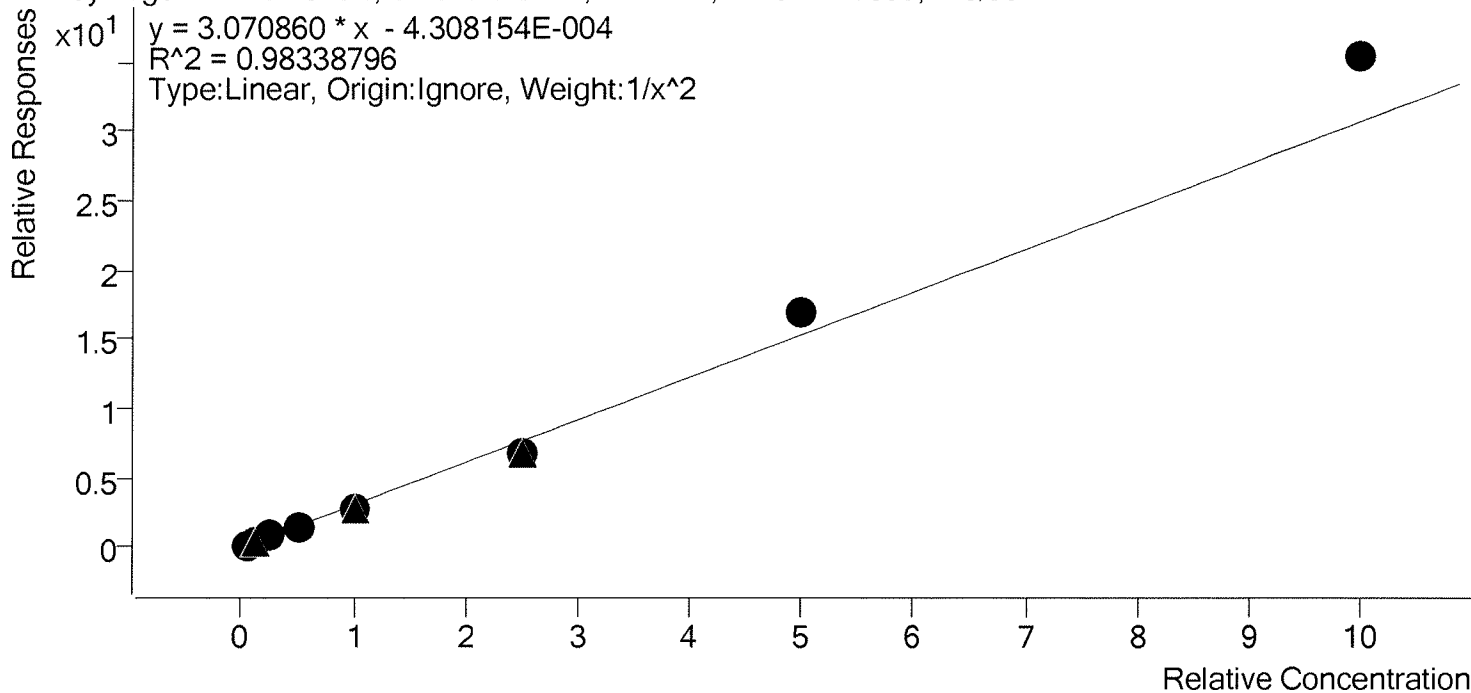
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Benzoyllecgonine

**Internal Standard** Benzoyllecgonine-d8

Benzoyllecgonine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.1	101.3
cal 2	2	✓	10.0	9.6	96.4
cal 3	3	✓	25.0	27.9	111.8
cal 4	4	✓	50.0	43.3	86.6
cal 5	5	✓	100.0	90.0	90.0
cal 6	6	✓	250.0	221.9	88.7
cal 7	7	✓	500.0	549.3	109.9
cal 8	8	✓	1000.0	1152.8	115.3

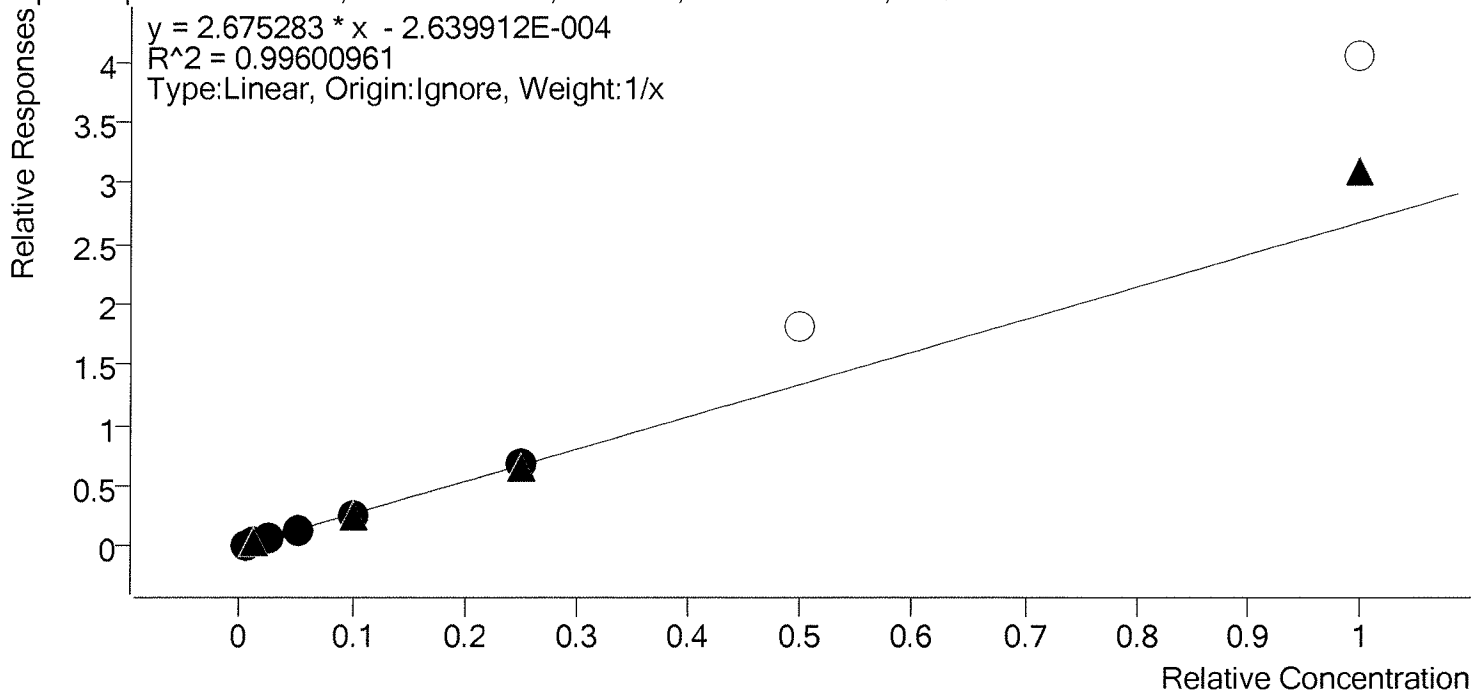
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Buprenorphine

**Internal Standard** Buprenorphine-D4

Buprenorphine - 8 Levels, 6 Levels Used, 8 Points, 6 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	0.5	0.5	102.8
cal 2	2	✓	1.0	1.0	100.4
cal 3	3	✓	2.5	2.7	109.8
cal 4	4	✓	5.0	4.4	88.7
cal 5	5	✓	10.0	9.5	95.0
cal 6	6	✓	25.0	25.8	103.2
cal 7	7	×	50.0	67.4	134.9
cal 8	8	×	100.0	151.3	151.3

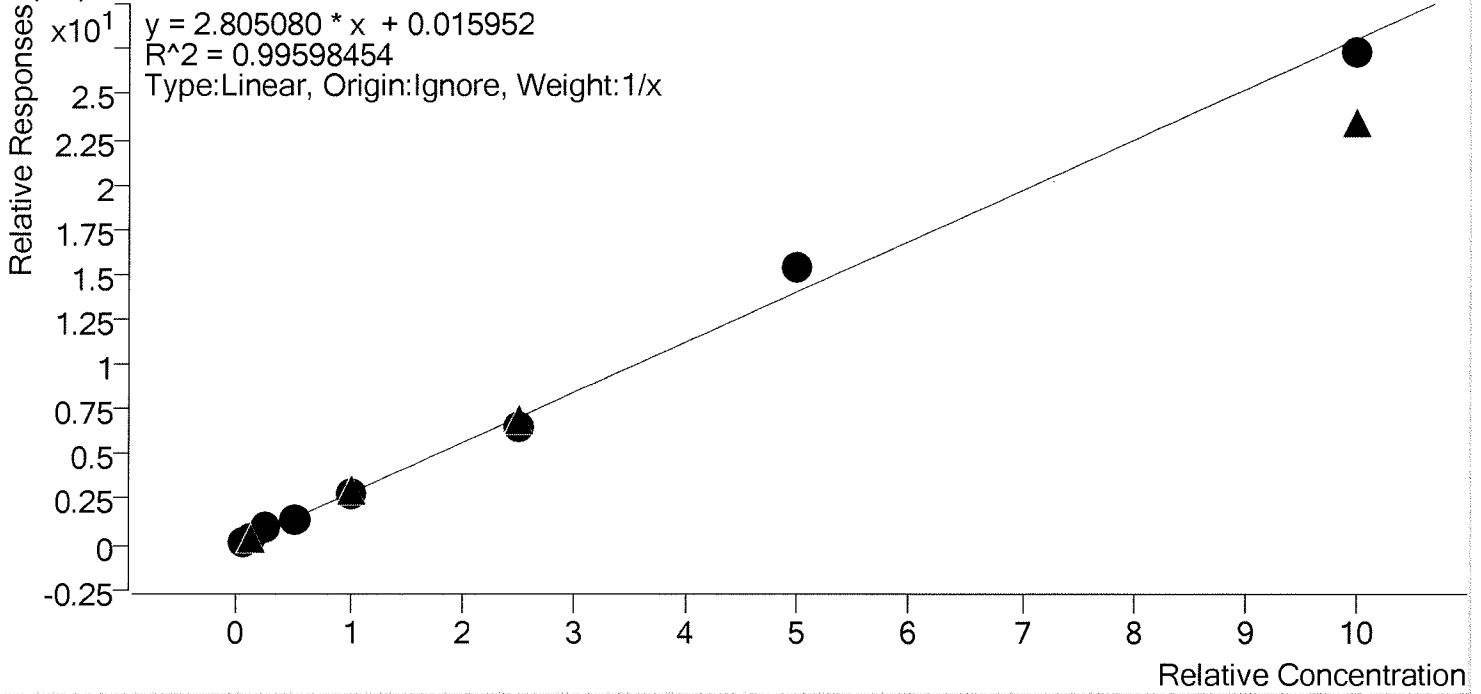
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Bupropion

**Internal Standard** Bupropion-D9

Bupropion - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



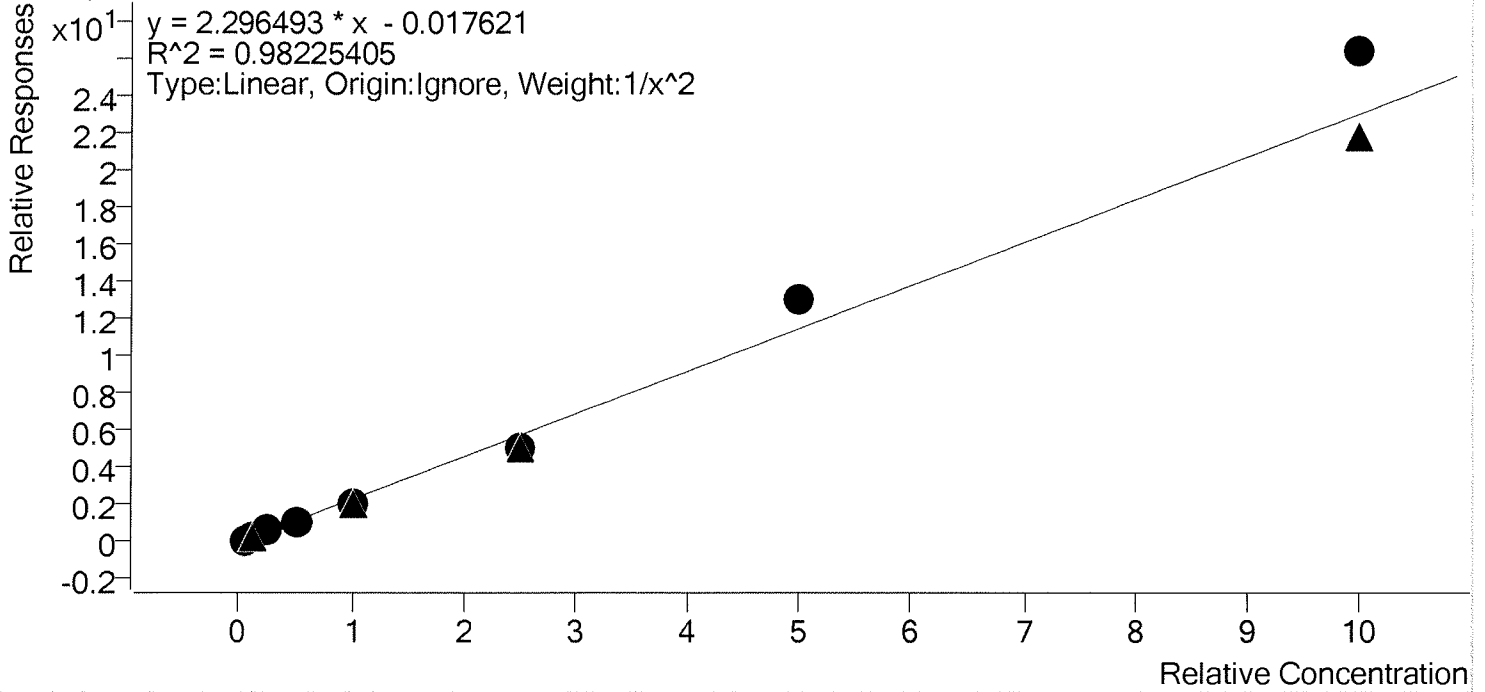
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.5	90.9
cal 2	2	✓	10.0	9.7	97.3
cal 3	3	✓	25.0	29.9	119.6
cal 4	4	✓	50.0	47.9	95.8
cal 5	5	✓	100.0	97.1	97.1
cal 6	6	✓	250.0	232.6	93.0
cal 7	7	✓	500.0	544.9	109.0
cal 8	8	✓	1000.0	973.3	97.3

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Carisoprodol **Internal Standard** Carisoprodol-D7

Carisoprodol - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.1	101.9
cal 2	2	✓	10.0	9.7	96.6
cal 3	3	✓	25.0	27.2	108.7
cal 4	4	✓	50.0	42.7	85.5
cal 5	5	✓	100.0	89.1	89.1
cal 6	6	✓	250.0	223.2	89.3
cal 7	7	✓	500.0	570.8	114.2
cal 8	8	✓	1000.0	1147.1	114.7



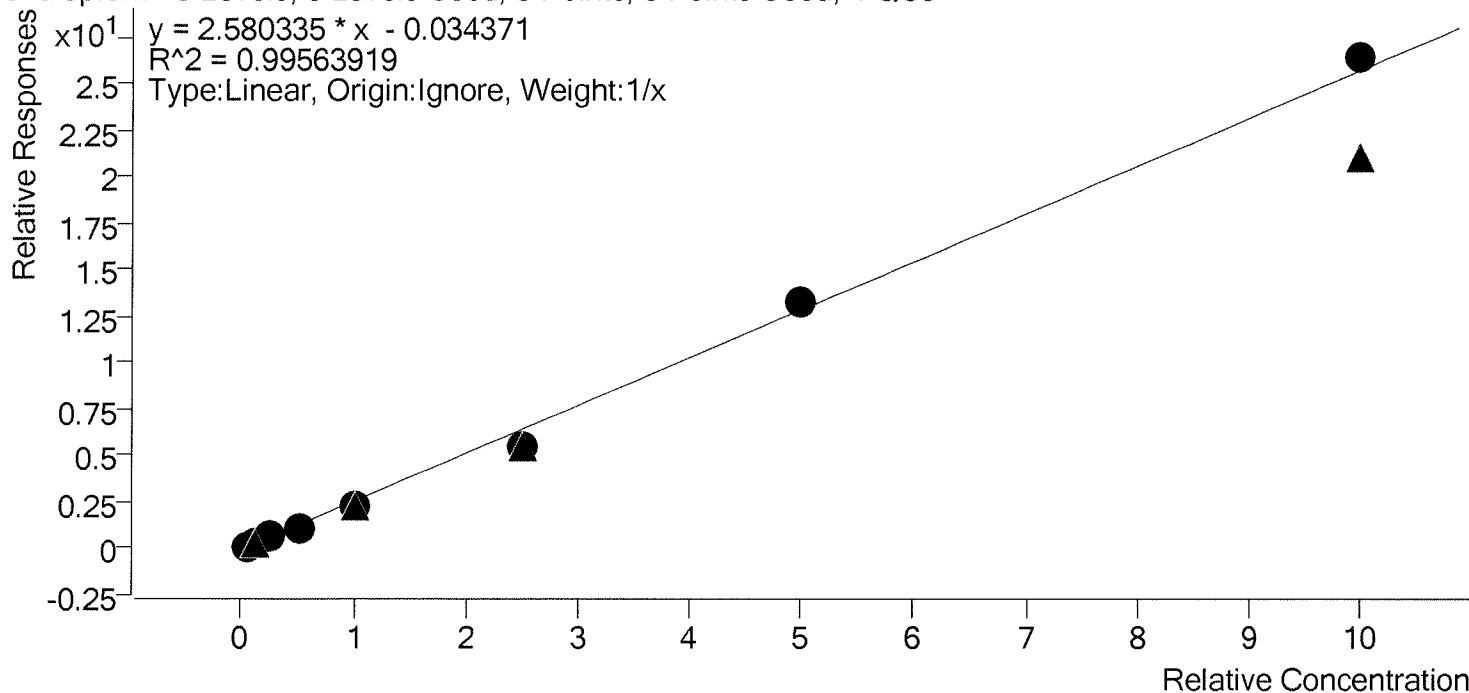
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Citalopram

**Internal Standard** Citalopram-D6

Citalopram - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.7	113.3
cal 2	2	✓	10.0	10.3	103.0
cal 3	3	✓	25.0	27.9	111.6
cal 4	4	✓	50.0	45.0	89.9
cal 5	5	✓	100.0	88.9	88.9
cal 6	6	✓	250.0	217.5	87.0
cal 7	7	✓	500.0	517.7	103.5
cal 8	8	✓	1000.0	1027.0	102.7

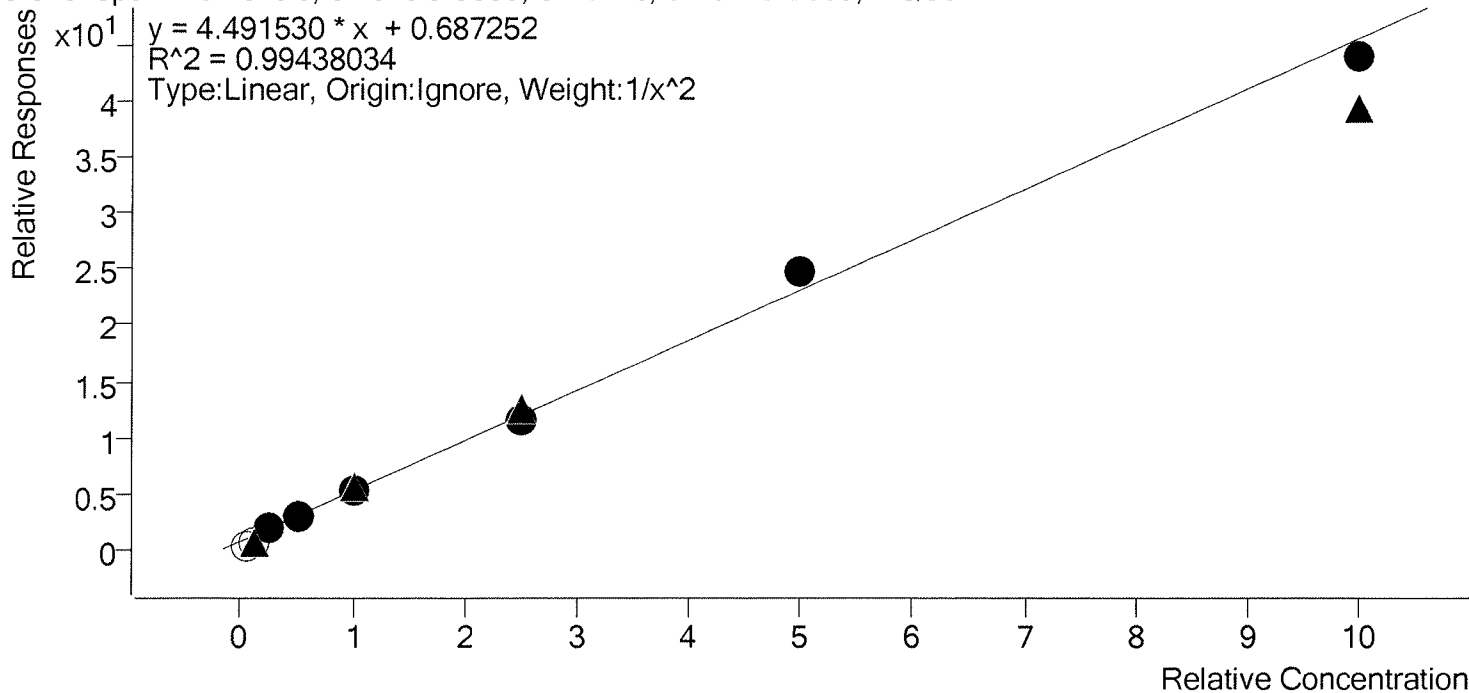
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Clonazepam

**Internal Standard** Clonazepam-D4

Clonazepam - 8 Levels, 6 Levels Used, 8 Points, 6 Points Used, 4 QCs



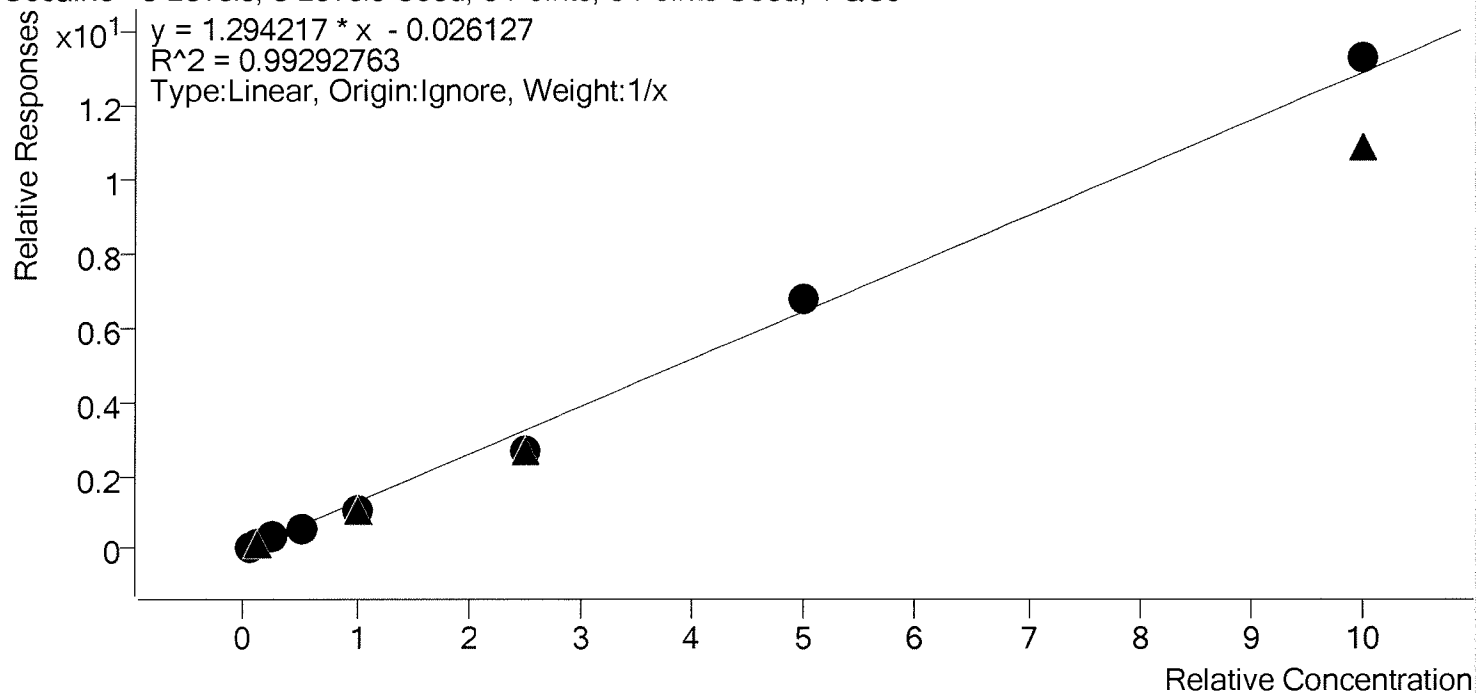
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	×	5.0	0.0	0.0
cal 2	2	×	10.0	0.0	0.0
cal 3	3	✓	25.0	25.7	102.9
cal 4	4	✓	50.0	46.0	91.9
cal 5	5	✓	100.0	104.6	104.6
cal 6	6	✓	250.0	241.0	96.4
cal 7	7	✓	500.0	538.9	107.8
cal 8	8	✓	1000.0	963.8	96.4

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Cocaine **Internal Standard** Cocaine-d3

Cocaine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.2	123.1
cal 2	2	✓	10.0	10.4	104.1
cal 3	3	✓	25.0	27.4	109.7
cal 4	4	✓	50.0	42.4	84.8
cal 5	5	✓	100.0	85.9	85.9
cal 6	6	✓	250.0	209.6	83.9
cal 7	7	✓	500.0	527.4	105.5
cal 8	8	✓	1000.0	1030.7	103.1

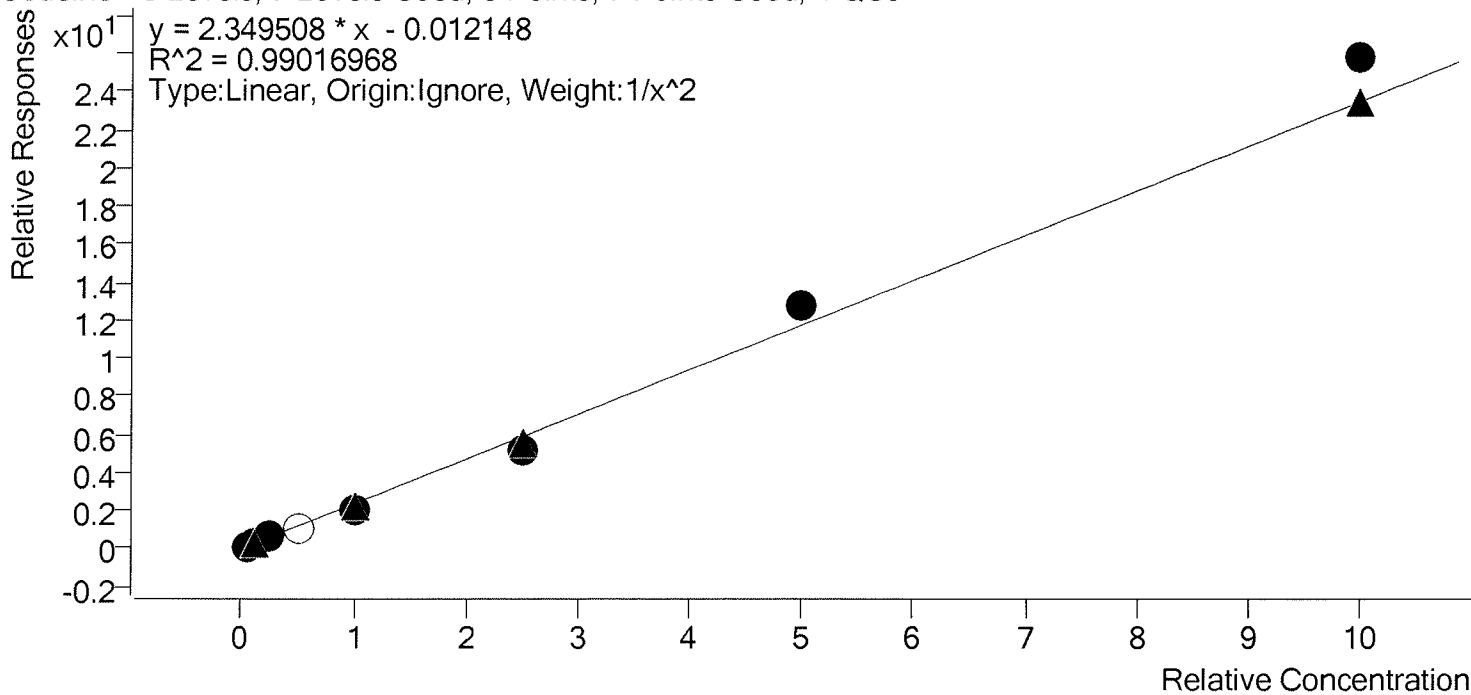
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Codeine

**Internal Standard** Codeine-D6

Codeine - 8 Levels, 7 Levels Used, 8 Points, 7 Points Used, 4 QCs



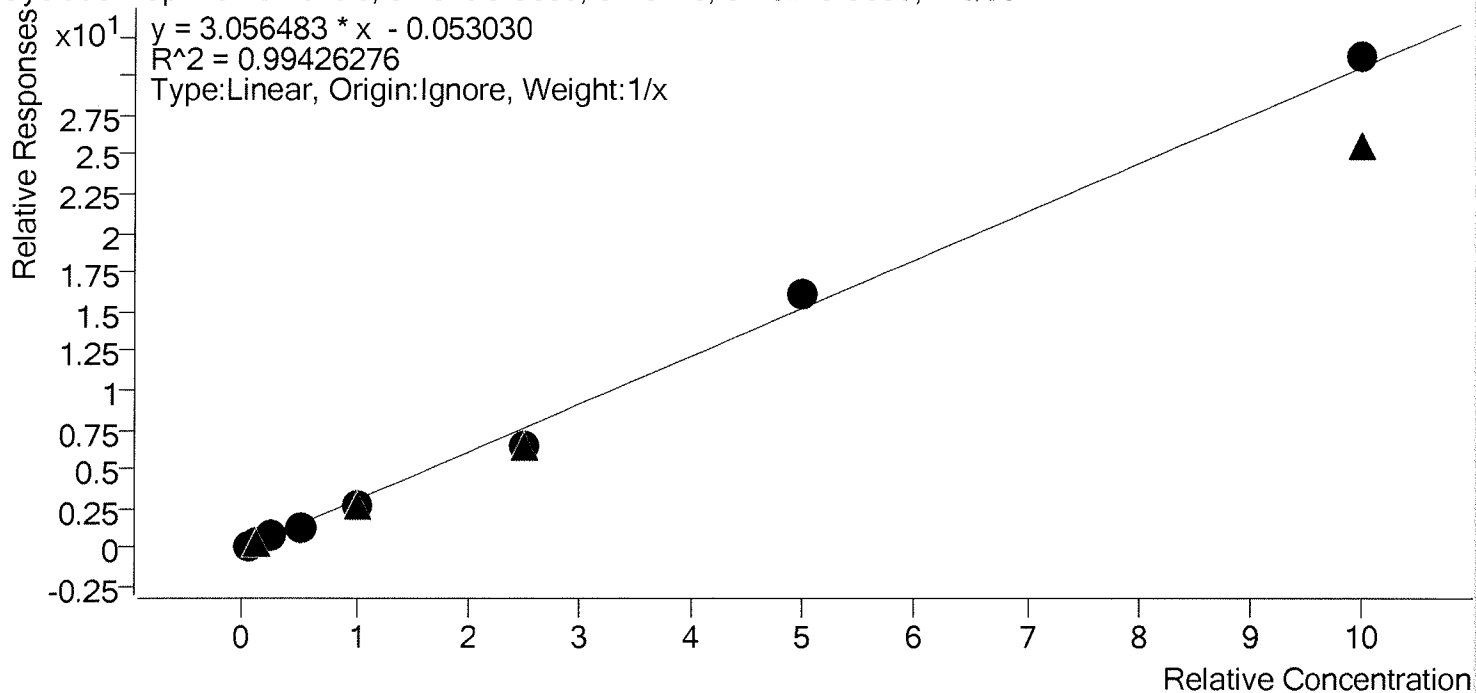
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.0	100.9
cal 2	2	✓	10.0	9.7	97.3
cal 3	3	✓	25.0	26.3	105.1
cal 4	4	×	50.0	48.7	97.3
cal 5	5	✓	100.0	89.7	89.7
cal 6	6	✓	250.0	220.7	88.3
cal 7	7	✓	500.0	544.2	108.8
cal 8	8	✓	1000.0	1098.1	109.8

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Cyclobenzaprine **Internal Standard** Cyclobenzaprine-D3

Cyclobenzaprine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



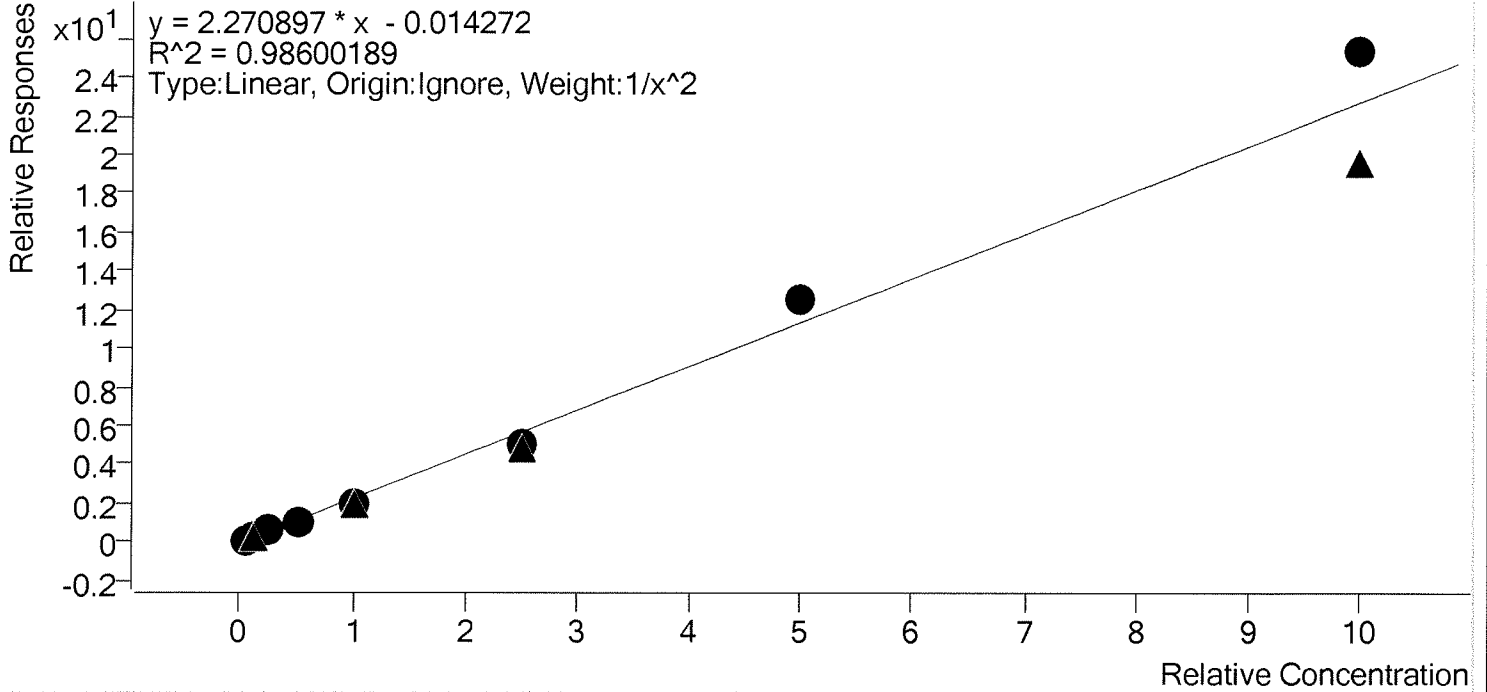
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.9	118.4
cal 2	2	✓	10.0	10.4	104.1
cal 3	3	✓	25.0	27.4	109.8
cal 4	4	✓	50.0	43.0	86.0
cal 5	5	✓	100.0	88.1	88.1
cal 6	6	✓	250.0	214.0	85.6
cal 7	7	✓	500.0	529.7	105.9
cal 8	8	✓	1000.0	1021.4	102.1

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Dextromethorphan **Internal Standard** Dextromethorphan-D3

Dextromethorphan - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



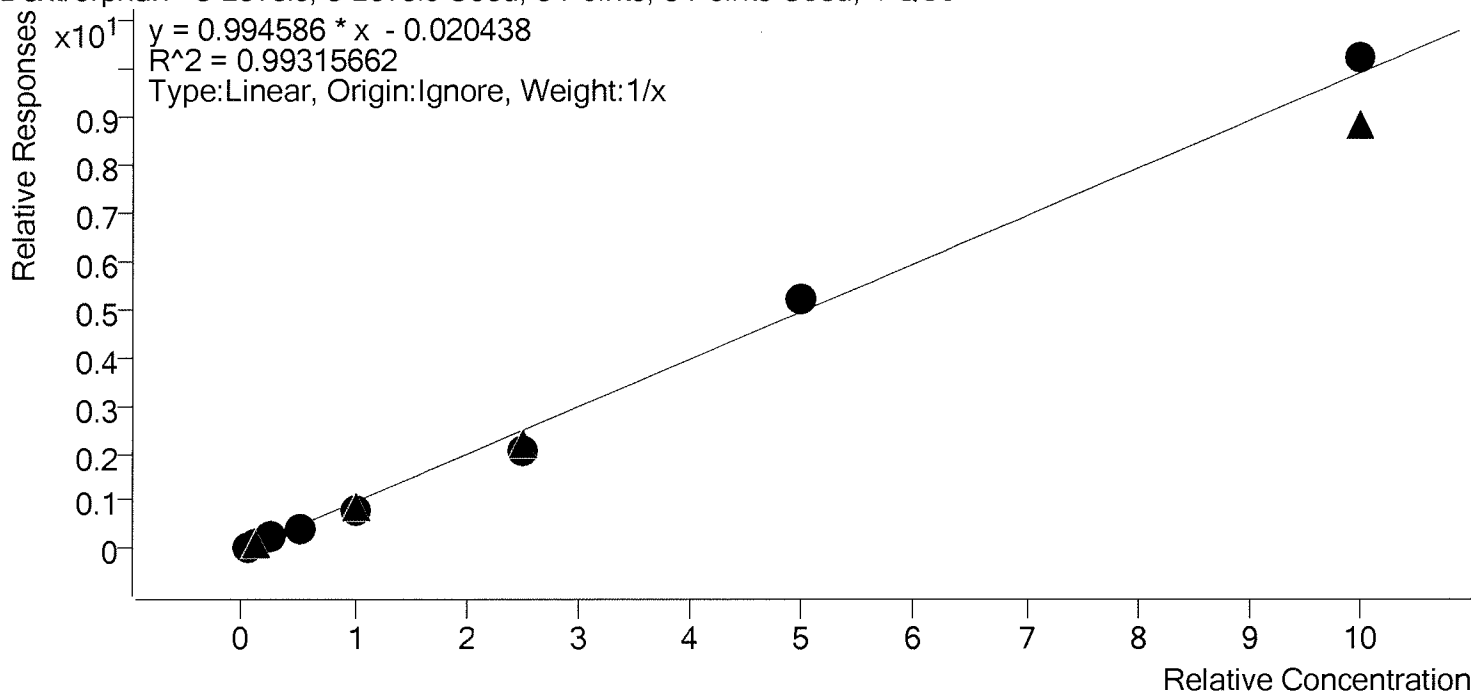
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.1	101.1
cal 2	2	✓	10.0	9.7	96.6
cal 3	3	✓	25.0	27.9	111.8
cal 4	4	✓	50.0	44.3	88.6
cal 5	5	✓	100.0	89.7	89.7
cal 6	6	✓	250.0	224.3	89.7
cal 7	7	✓	500.0	555.1	111.0
cal 8	8	✓	1000.0	1115.8	111.6

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Dextrorphan **Internal Standard** Dextrorphan-D3

Dextrorphan - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.1	122.2
cal 2	2	✓	10.0	10.6	106.0
cal 3	3	✓	25.0	27.1	108.4
cal 4	4	✓	50.0	42.7	85.4
cal 5	5	✓	100.0	85.4	85.4
cal 6	6	✓	250.0	210.6	84.2
cal 7	7	✓	500.0	526.0	105.2
cal 8	8	✓	1000.0	1031.4	103.1

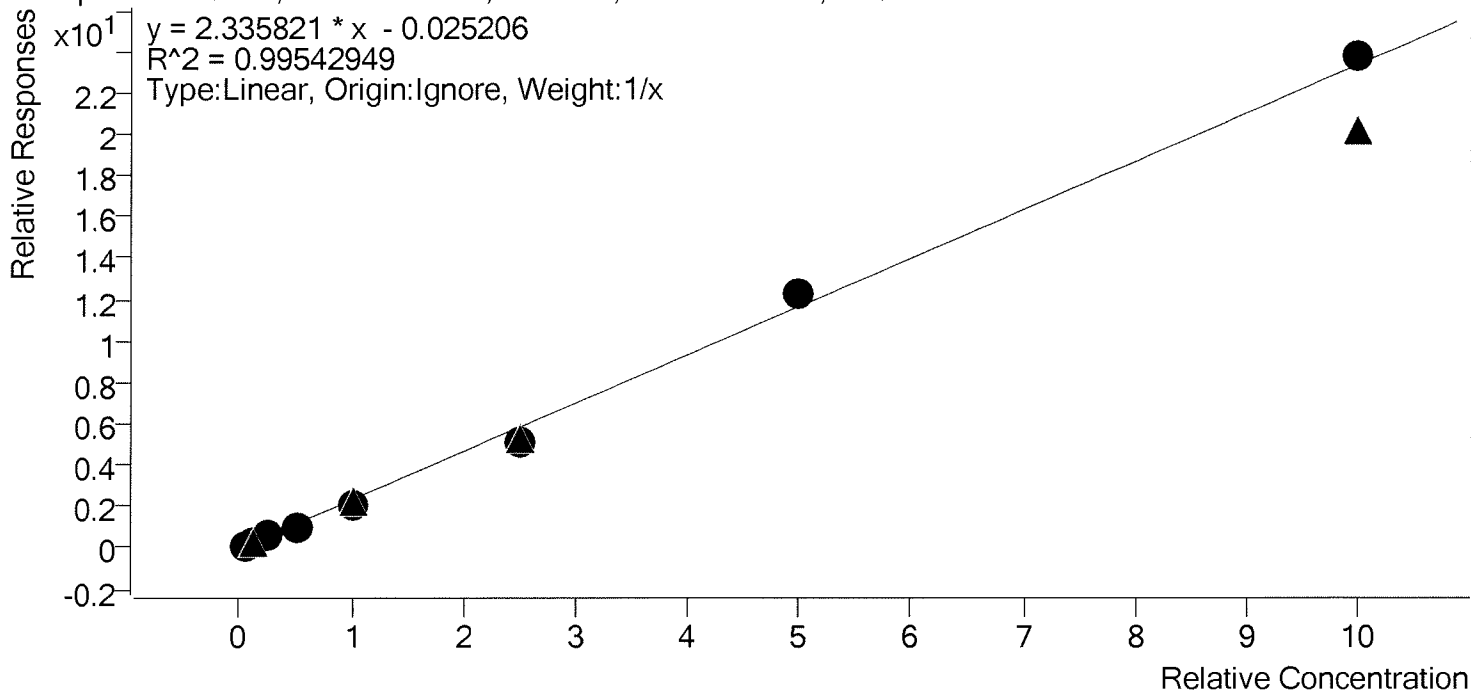
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Diazepam

**Internal Standard** Diazepam-D5

Diazepam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.5	109.1
cal 2	2	✓	10.0	10.2	102.3
cal 3	3	✓	25.0	28.5	113.8
cal 4	4	✓	50.0	45.7	91.3
cal 5	5	✓	100.0	89.7	89.7
cal 6	6	✓	250.0	216.6	86.7
cal 7	7	✓	500.0	526.7	105.3
cal 8	8	✓	1000.0	1017.1	101.7

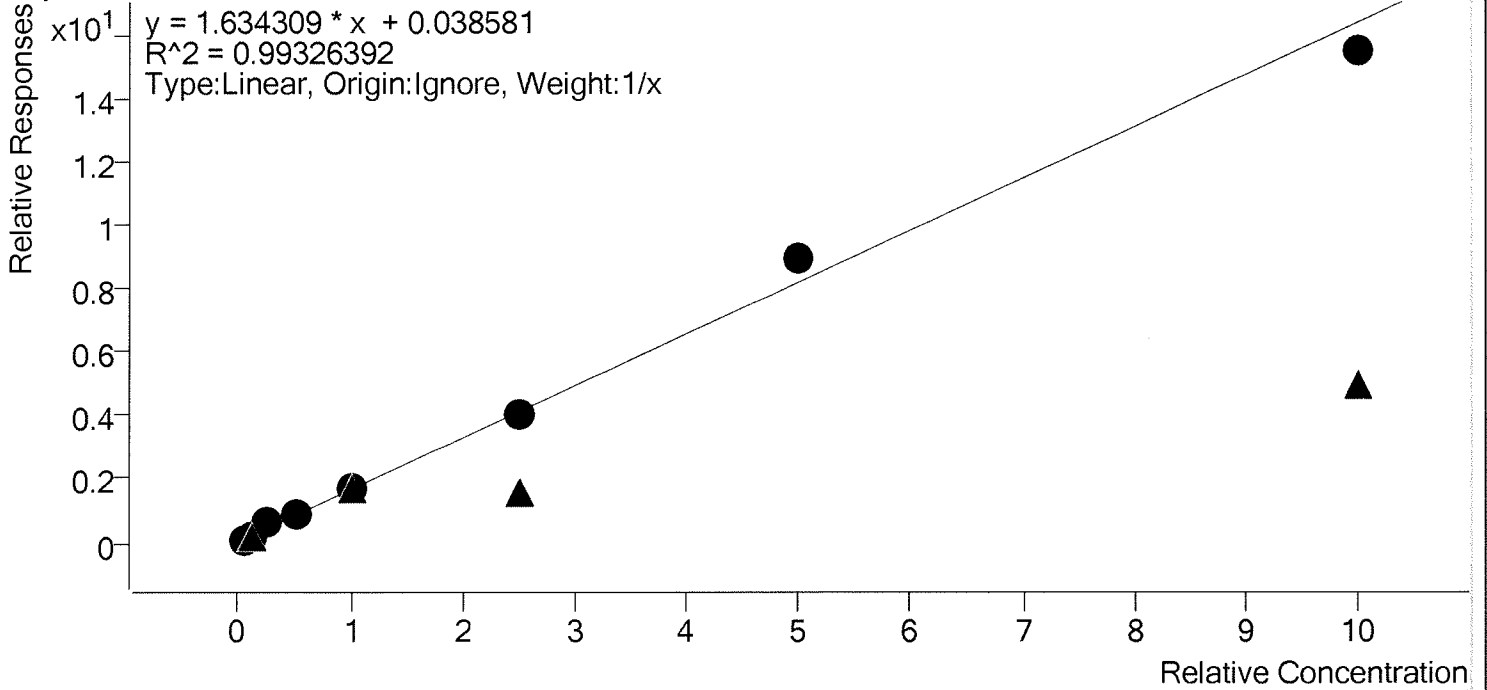


# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Dihydrocodeine **Internal Standard** Dihydrocodeine-D6

Dihydrocodeine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	3.2	63.3
cal 2	2	✓	10.0	9.0	90.5
cal 3	3	✓	25.0	34.6	138.3
cal 4	4	✓	50.0	51.1	102.1
cal 5	5	✓	100.0	102.9	102.9
cal 6	6	✓	250.0	247.6	99.0
cal 7	7	✓	500.0	546.8	109.4
cal 8	8	✓	1000.0	944.8	94.5

Not evaluated

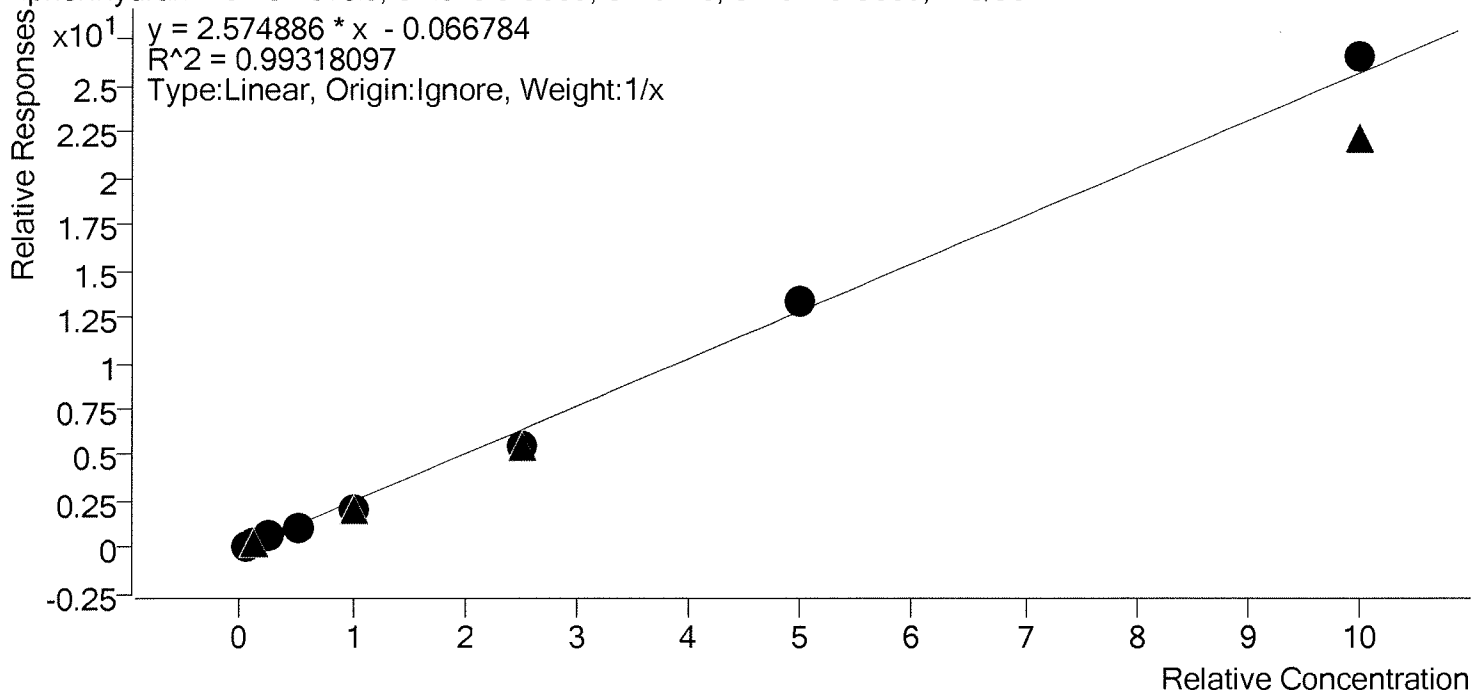
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Diphenhydramine

**Internal Standard** Diphenhydramine-D3

Diphenhydramine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



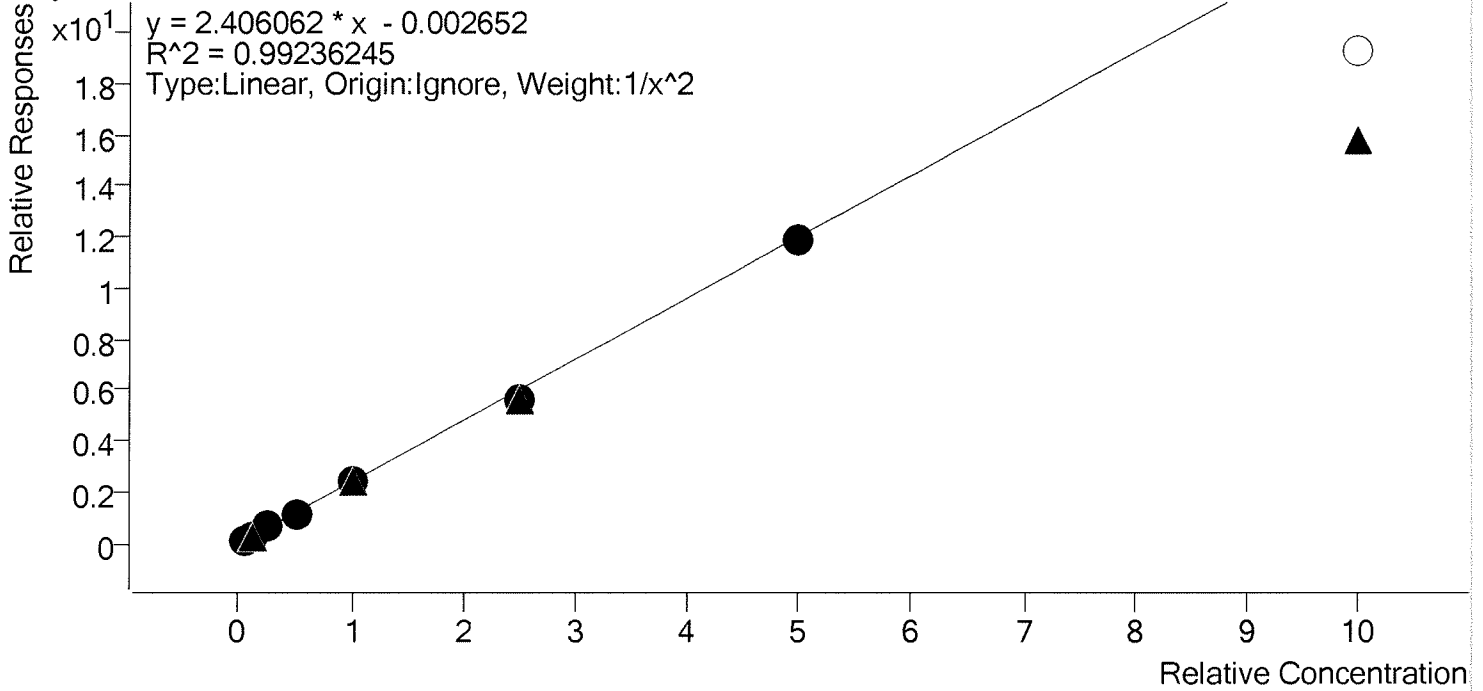
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.4	127.5
cal 2	2	✓	10.0	10.5	105.0
cal 3	3	✓	25.0	26.6	106.3
cal 4	4	✓	50.0	41.5	83.0
cal 5	5	✓	100.0	85.3	85.3
cal 6	6	✓	250.0	212.0	84.8
cal 7	7	✓	500.0	523.7	104.7
cal 8	8	✓	1000.0	1034.0	103.4

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Doxylamine **Internal Standard** Doxylamine-D5

Doxylamine - 8 Levels, 7 Levels Used, 8 Points, 7 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	97.8
cal 2	2	✓	10.0	9.9	99.1
cal 3	3	✓	25.0	29.0	116.2
cal 4	4	✓	50.0	48.4	96.8
cal 5	5	✓	100.0	97.9	97.9
cal 6	6	✓	250.0	232.8	93.1
cal 7	7	✓	500.0	495.8	99.2
cal 8	8	×	1000.0	801.8	80.2

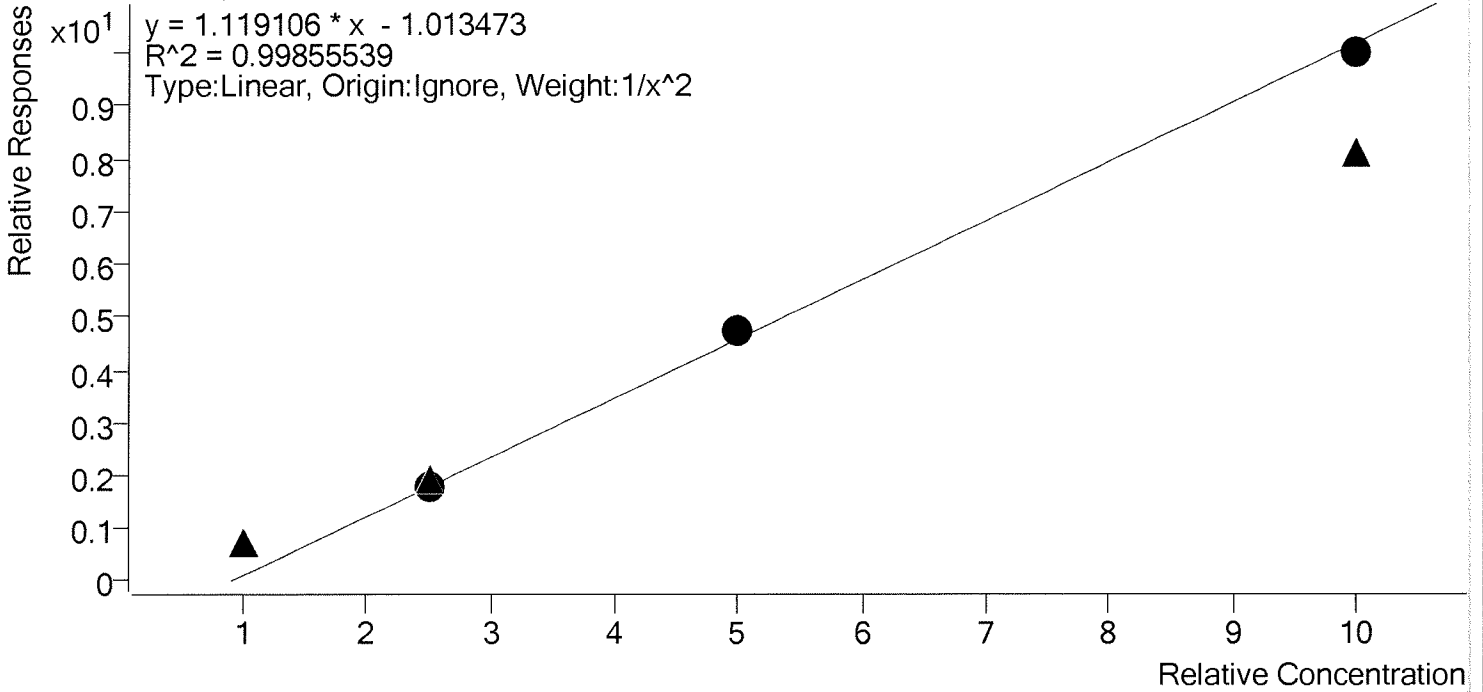
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\lam 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** EDDP

**Internal Standard** EDDP-D3

EDDP - 3 Levels, 3 Levels Used, 3 Points, 3 Points Used, 3 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 6	6	✓	250.0	247.9	99.2
cal 7	7	✓	500.0	512.5	102.5
cal 8	8	✓	1000.0	983.4	98.3

Not evaluated

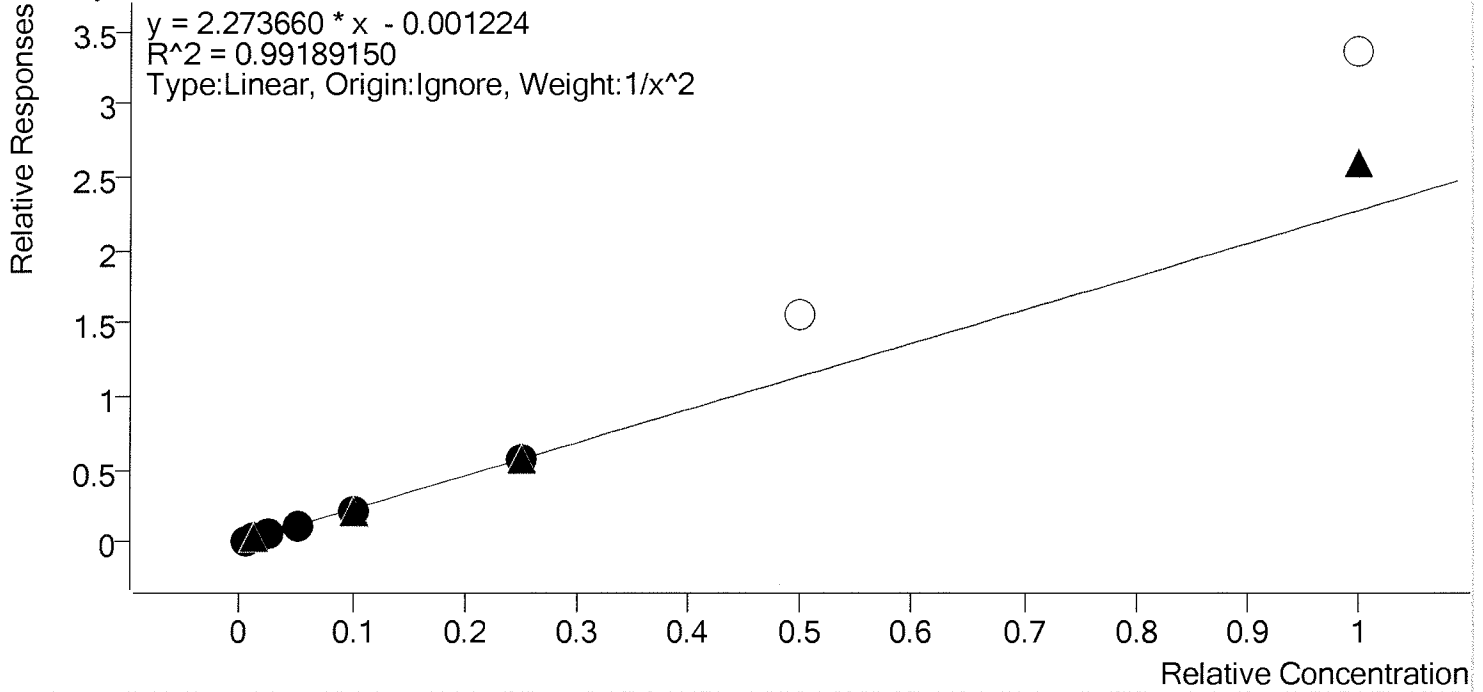
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Fentanyl

**Internal Standard** Fentanyl-D5

Fentanyl - 8 Levels, 6 Levels Used, 8 Points, 6 Points Used, 4 QCs



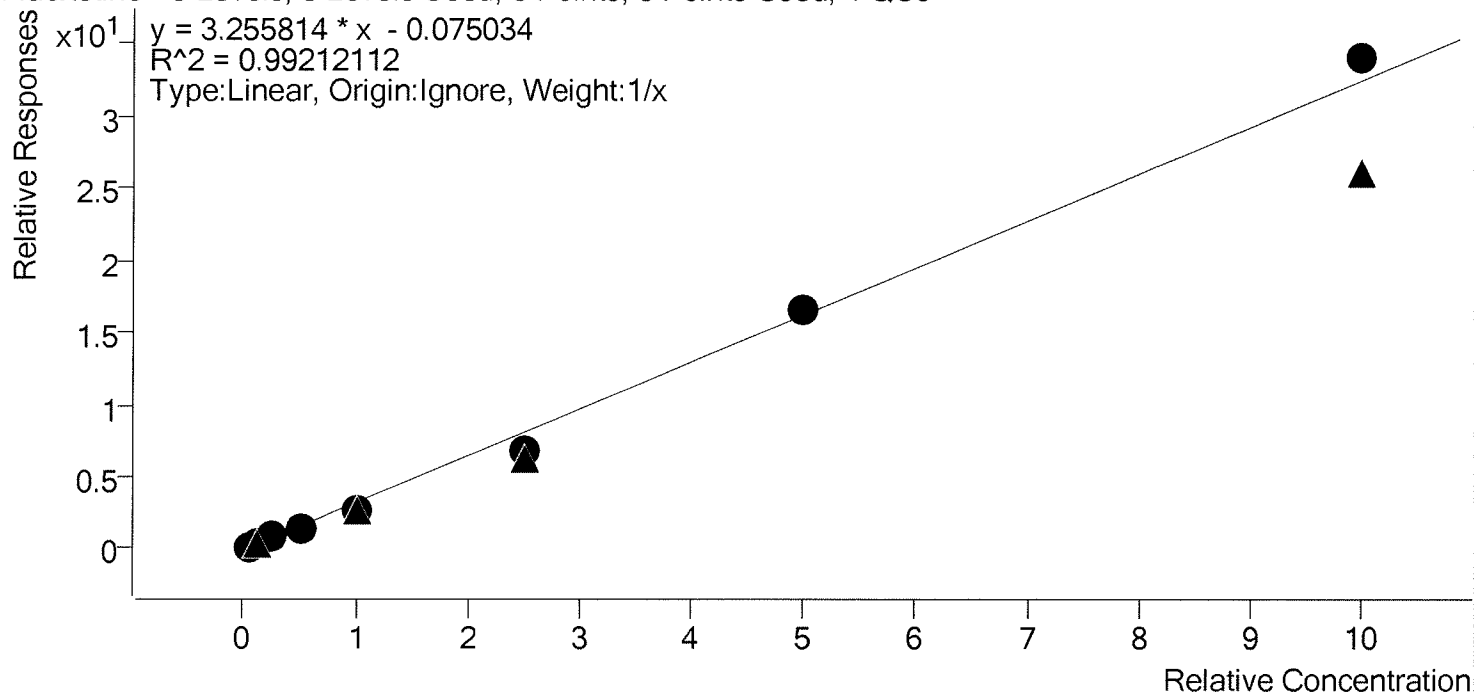
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	0.5	0.5	99.7
cal 2	2	✓	1.0	1.0	97.2
cal 3	3	✓	2.5	2.8	113.3
cal 4	4	✓	5.0	4.6	91.5
cal 5	5	✓	10.0	9.7	96.6
cal 6	6	✓	25.0	25.4	101.7
cal 7	7	×	50.0	69.0	138.0
cal 8	8	×	100.0	147.9	147.9

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Fluoxetine **Internal Standard** Fluoxetine-D6

Fluoxetine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



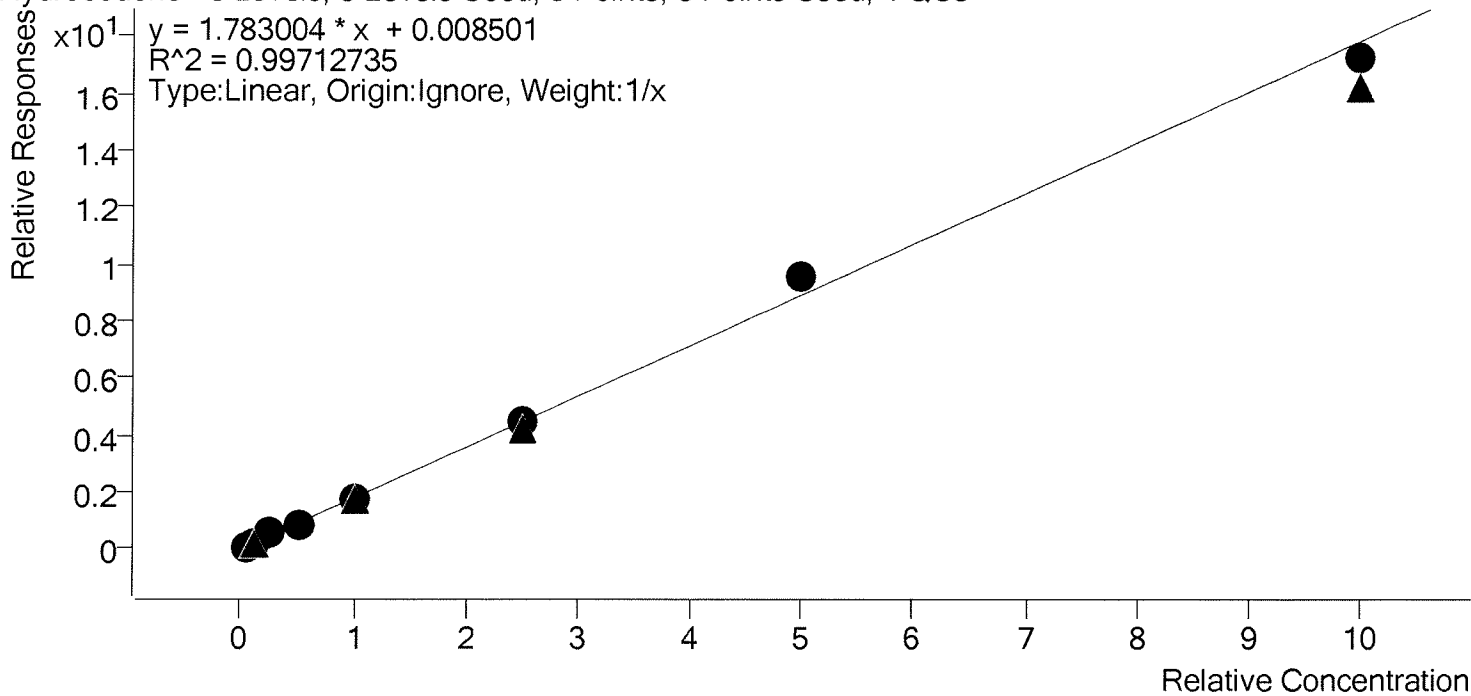
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.3	126.1
cal 2	2	✓	10.0	10.7	106.6
cal 3	3	✓	25.0	27.0	108.2
cal 4	4	✓	50.0	42.0	84.1
cal 5	5	✓	100.0	84.2	84.2
cal 6	6	✓	250.0	208.0	83.2
cal 7	7	✓	500.0	513.8	102.8
cal 8	8	✓	1000.0	1047.9	104.8

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Hydrocodone **Internal Standard** Hydrocodone-D6

Hydrocodone - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



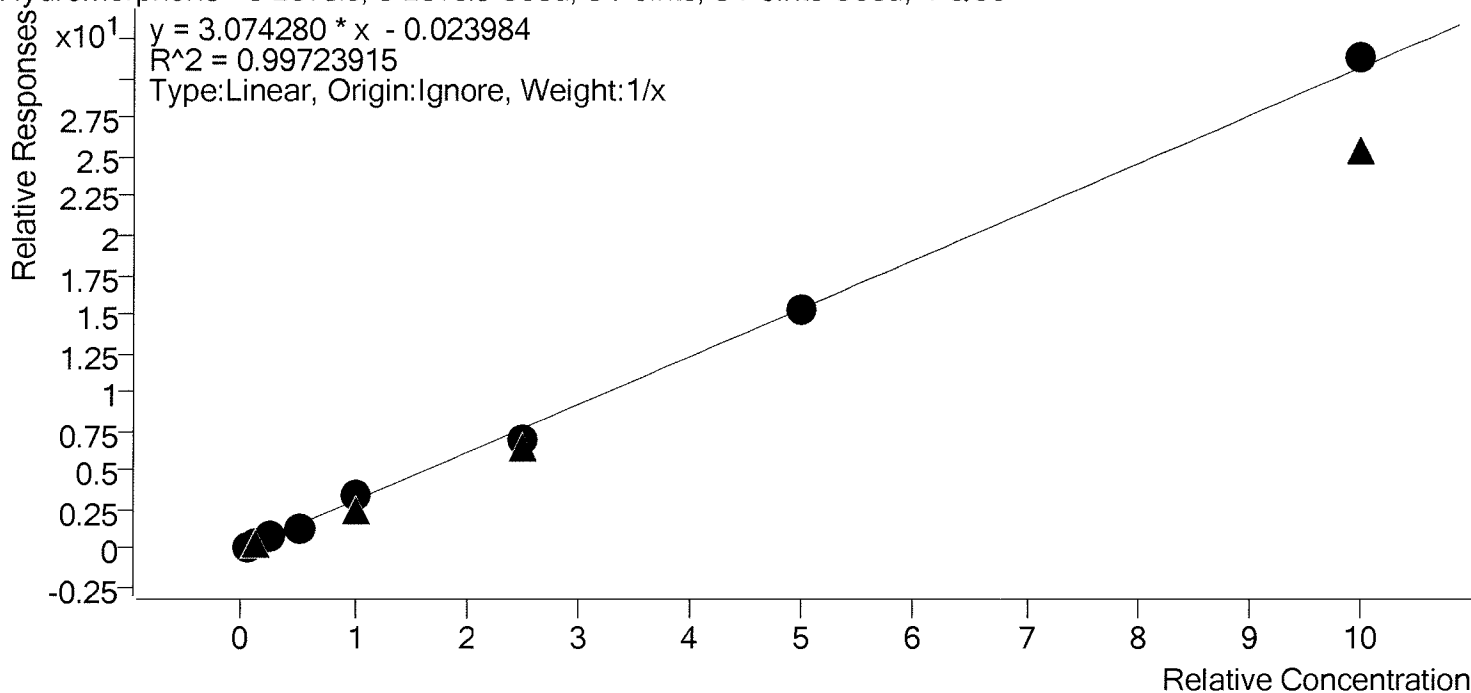
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.1	82.5
cal 2	2	✓	10.0	10.8	108.4
cal 3	3	✓	25.0	29.4	117.6
cal 4	4	✓	50.0	45.7	91.4
cal 5	5	✓	100.0	94.9	94.9
cal 6	6	✓	250.0	254.2	101.7
cal 7	7	✓	500.0	534.0	106.8
cal 8	8	✓	1000.0	966.9	96.7

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Hydromorphone **Internal Standard** Hydromorphone-D6

Hydromorphone - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.0	100.1
cal 2	2	✓	10.0	9.6	96.2
cal 3	3	✓	25.0	28.7	114.9
cal 4	4	✓	50.0	43.6	87.2
cal 5	5	✓	100.0	109.6	109.6
cal 6	6	✓	250.0	226.8	90.7
cal 7	7	✓	500.0	496.2	99.2
cal 8	8	✓	1000.0	1020.5	102.0

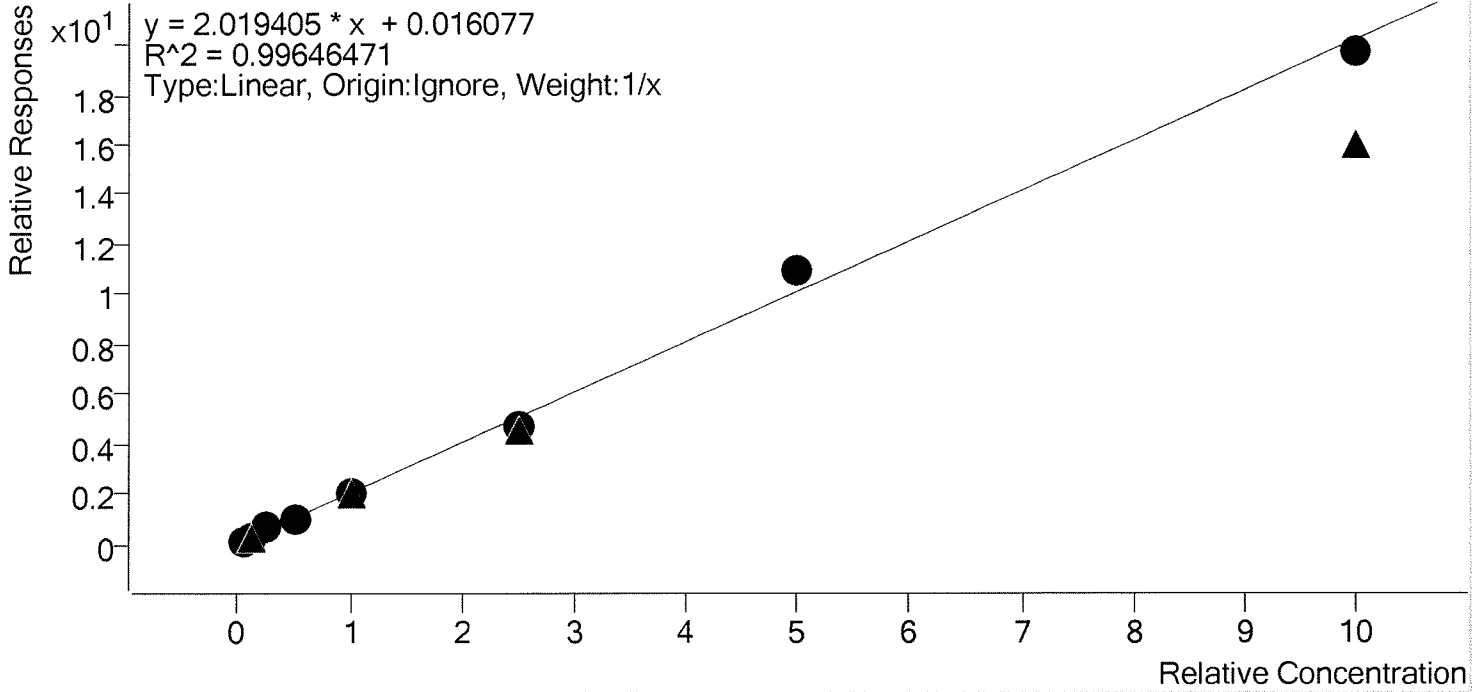


# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Ketamine **Internal Standard** Ketamine-D4

Ketamine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.4	87.2
cal 2	2	✓	10.0	9.7	97.0
cal 3	3	✓	25.0	30.0	120.0
cal 4	4	✓	50.0	49.2	98.4
cal 5	5	✓	100.0	98.7	98.7
cal 6	6	✓	250.0	232.5	93.0
cal 7	7	✓	500.0	540.6	108.1
cal 8	8	✓	1000.0	974.9	97.5

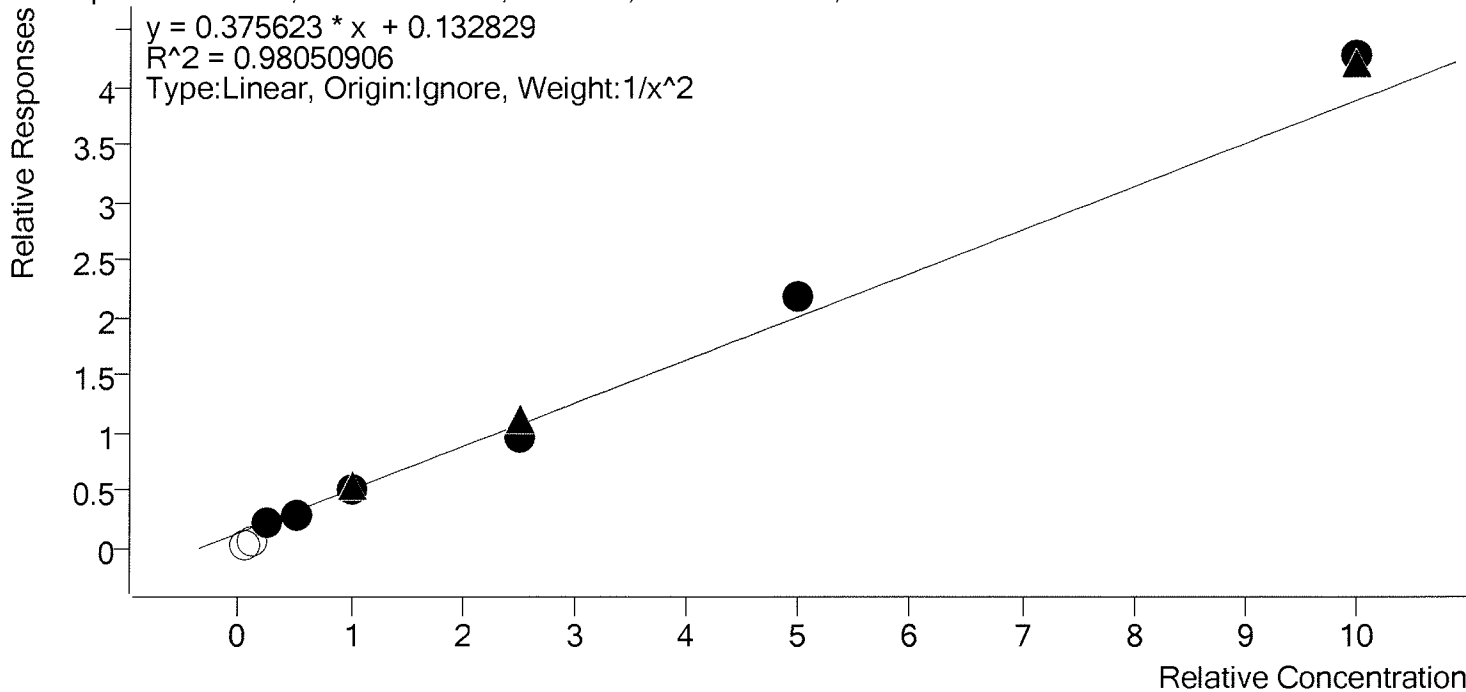
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Lorazepam

**Internal Standard** Alprazolam-D5

Lorazepam - 8 Levels, 6 Levels Used, 8 Points, 6 Points Used, 4 QCs



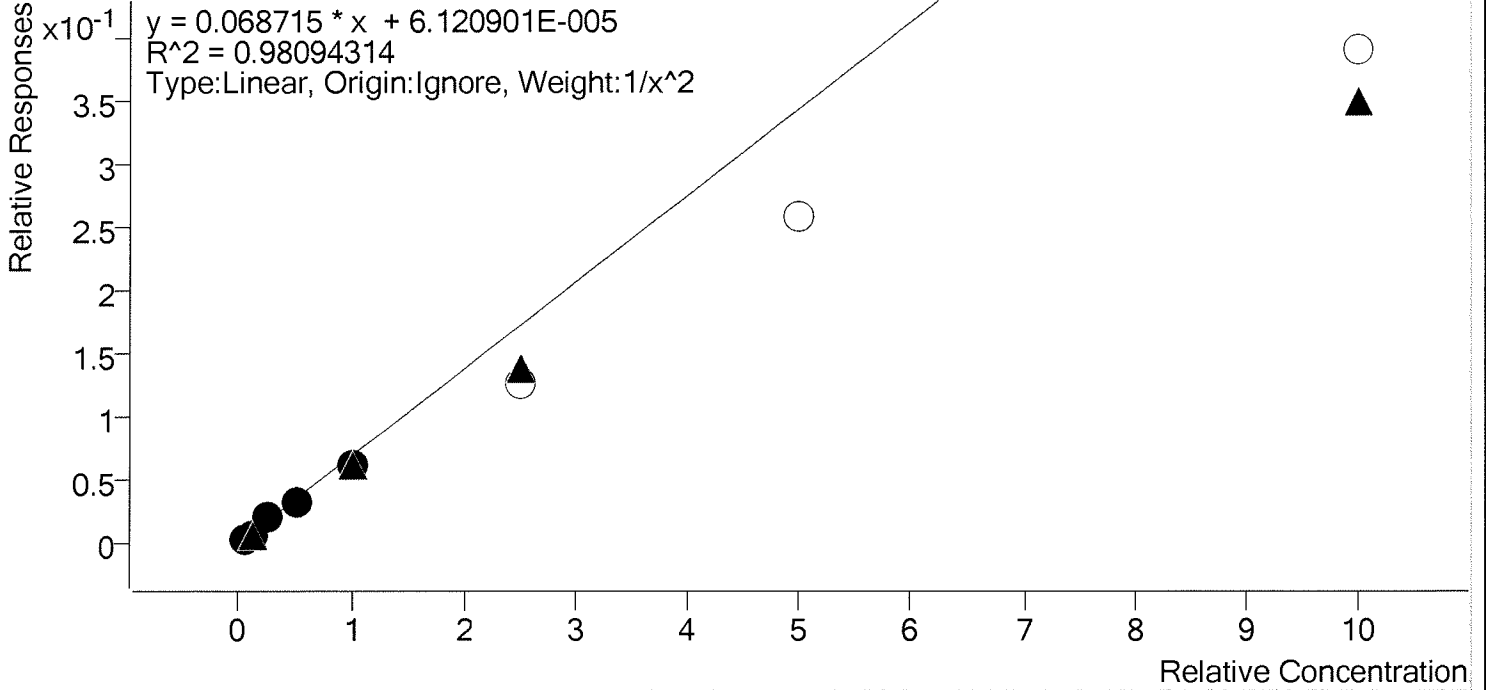
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	×	5.0	0.0	0.0
cal 2	2	×	10.0	0.0	0.0
cal 3	3	✓	25.0	27.2	108.8
cal 4	4	✓	50.0	42.0	84.0
cal 5	5	✓	100.0	98.0	98.0
cal 6	6	✓	250.0	224.0	89.6
cal 7	7	✓	500.0	546.0	109.2
cal 8	8	✓	1000.0	1103.5	110.4

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Lamotrigine **Internal Standard** Diphenhydramine-D3

Lamotrigine - 8 Levels, 5 Levels Used, 8 Points, 5 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	98.0
cal 2	2	✓	10.0	9.9	98.7
cal 3	3	✓	25.0	29.5	118.0
cal 4	4	✓	50.0	48.0	95.9
cal 5	5	✓	100.0	89.4	89.4
cal 6	6	×	250.0	184.6	73.9
cal 7	7	×	500.0	376.3	75.3
cal 8	8	×	1000.0	567.1	56.7

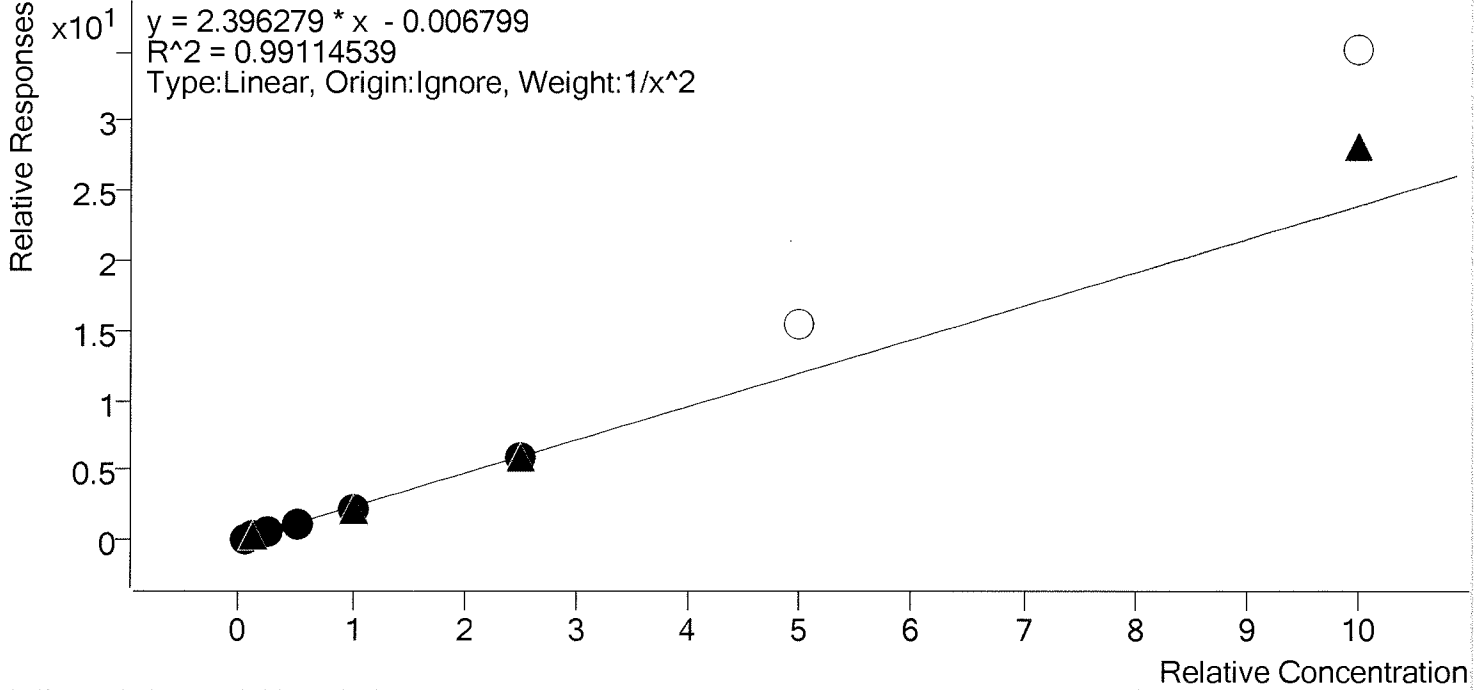
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Meprobamate

**Internal Standard** Meprobamate-D7

Meprobamate - 8 Levels, 6 Levels Used, 8 Points, 6 Points Used, 4 QCs



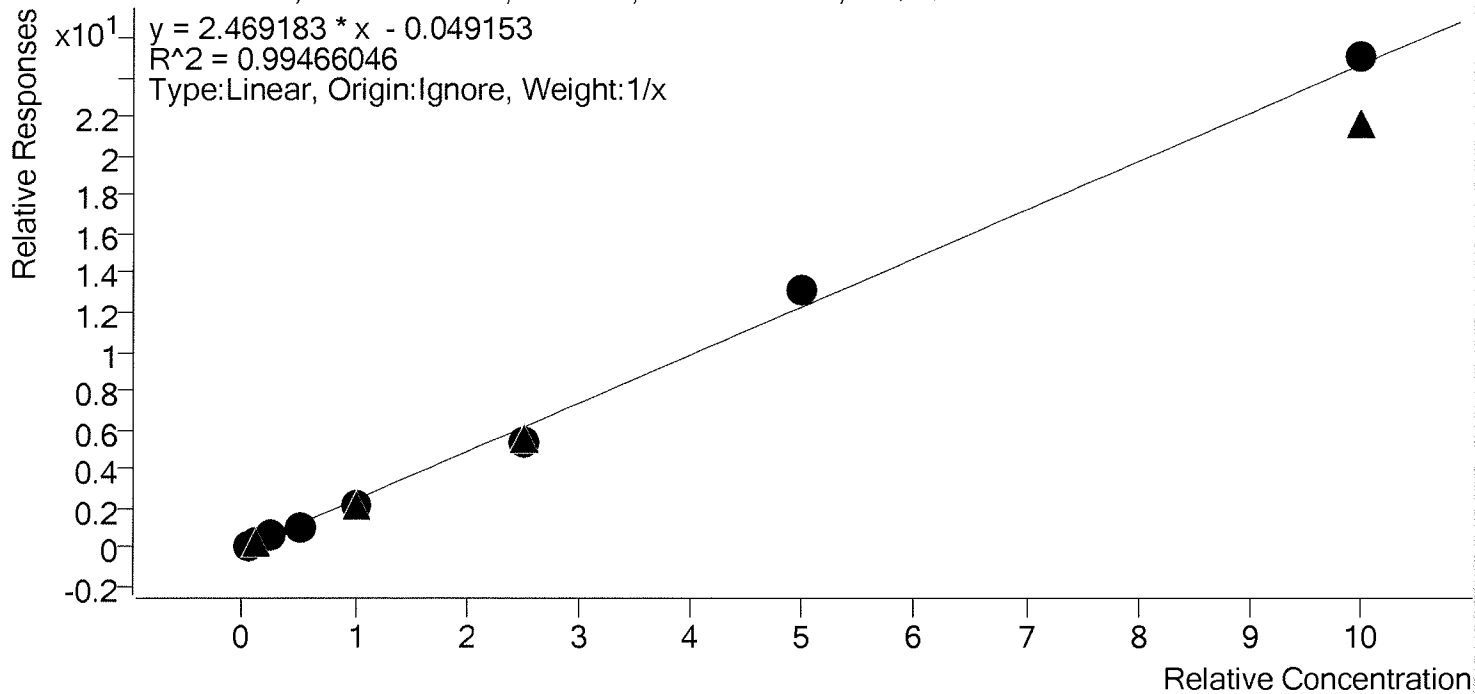
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	97.5
cal 2	2	✓	10.0	10.1	100.9
cal 3	3	✓	25.0	28.7	114.8
cal 4	4	✓	50.0	47.4	94.9
cal 5	5	✓	100.0	93.7	93.7
cal 6	6	✓	250.0	245.7	98.3
cal 7	7	×	500.0	651.7	130.3
cal 8	8	×	1000.0	1466.5	146.6

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Methadone **Internal Standard** Methadone-D9

Methadone - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



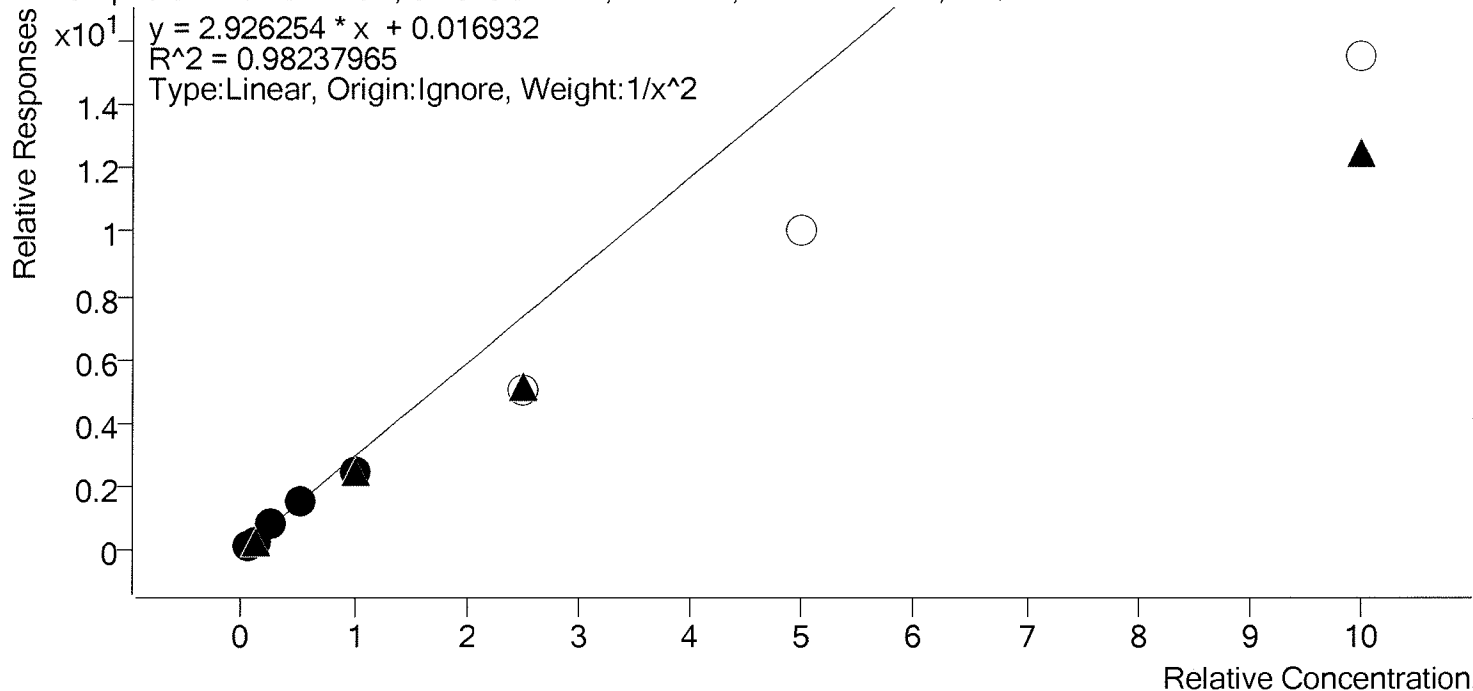
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.0	120.4
cal 2	2	✓	10.0	10.4	104.4
cal 3	3	✓	25.0	27.0	108.0
cal 4	4	✓	50.0	42.8	85.6
cal 5	5	✓	100.0	85.7	85.7
cal 6	6	✓	250.0	219.6	87.8
cal 7	7	✓	500.0	532.2	106.4
cal 8	8	✓	1000.0	1016.3	101.6

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Methamphetamine **Internal Standard** Methamphetamine-D11

Methamphetamine - 8 Levels, 5 Levels Used, 8 Points, 5 Points Used, 4 QCs



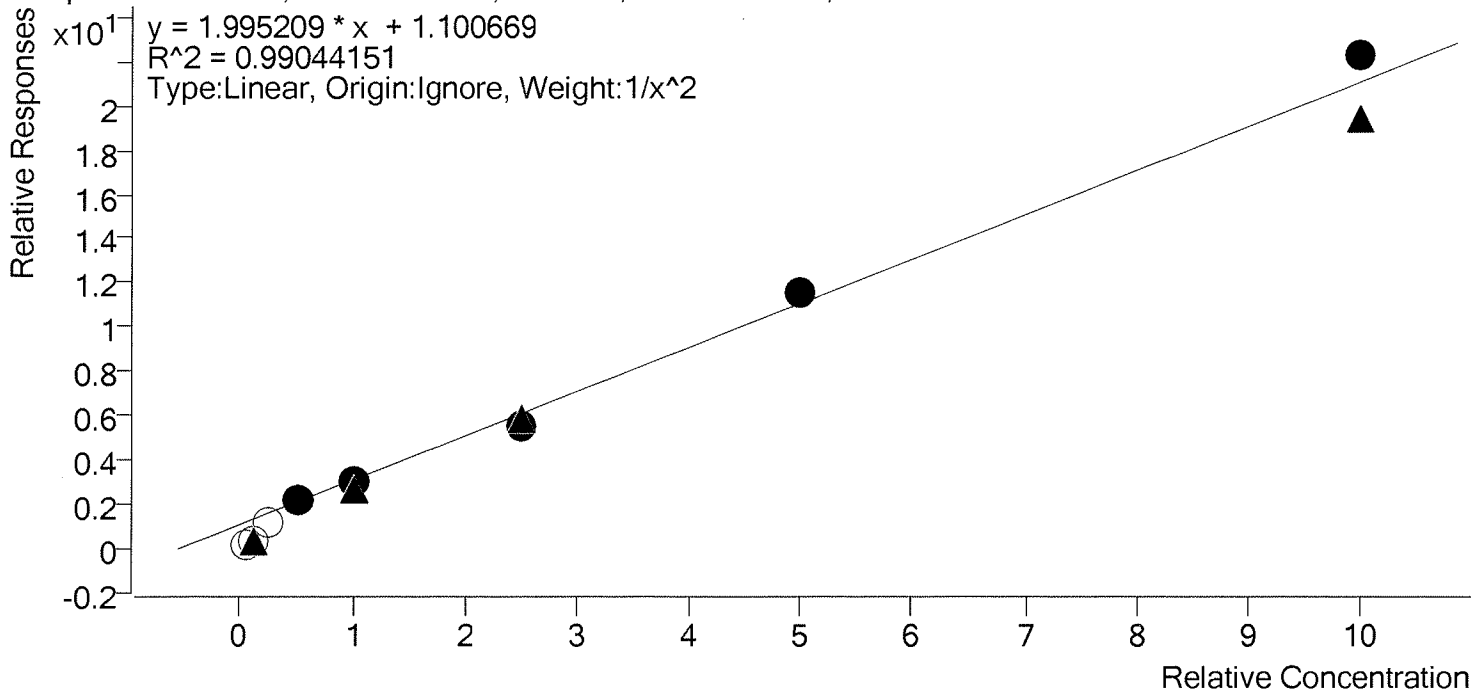
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	98.3
cal 2	2	✓	10.0	9.9	98.6
cal 3	3	✓	25.0	28.4	113.4
cal 4	4	✓	50.0	52.2	104.5
cal 5	5	✓	100.0	85.2	85.2
cal 6	6	×	250.0	173.4	69.4
cal 7	7	×	500.0	344.7	68.9
cal 8	8	×	1000.0	529.3	52.9

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Metoprolol **Internal Standard** Buprenorphine-D4

Metoprolol - 8 Levels, 5 Levels Used, 8 Points, 5 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	×	5.0	0.0	0.0
cal 2	2	×	10.0	0.0	0.0
cal 3	3	×	25.0	3.2	12.8
cal 4	4	✓	50.0	51.2	102.4
cal 5	5	✓	100.0	98.6	98.6
cal 6	6	✓	250.0	218.9	87.6
cal 7	7	✓	500.0	527.3	105.5
cal 8	8	✓	1000.0	1060.6	106.1

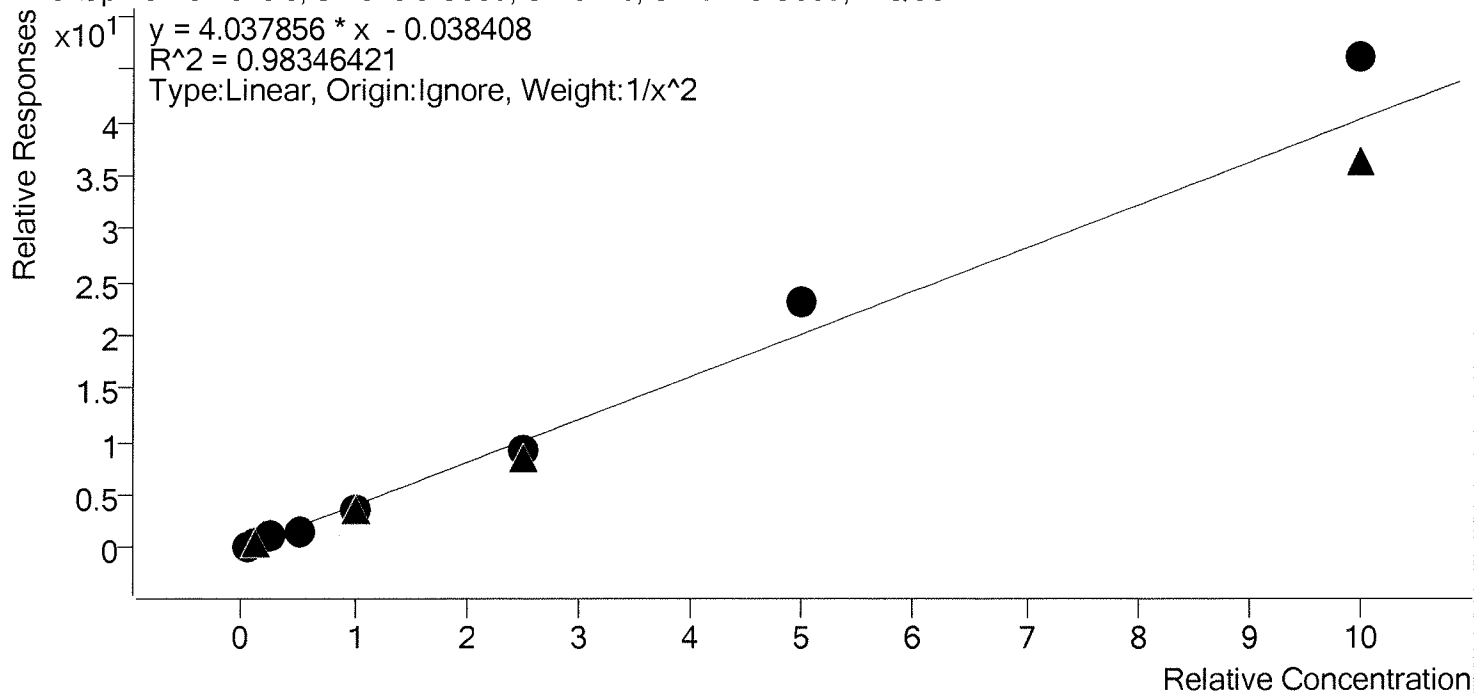
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Mirtazapine

**Internal Standard** alpha-PVP-d8

Mirtazapine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.1	102.9
cal 2	2	✓	10.0	9.6	96.3
cal 3	3	✓	25.0	26.2	104.8
cal 4	4	✓	50.0	42.2	84.4
cal 5	5	✓	100.0	89.9	89.9
cal 6	6	✓	250.0	230.4	92.2
cal 7	7	✓	500.0	575.4	115.1
cal 8	8	✓	1000.0	1144.2	114.4

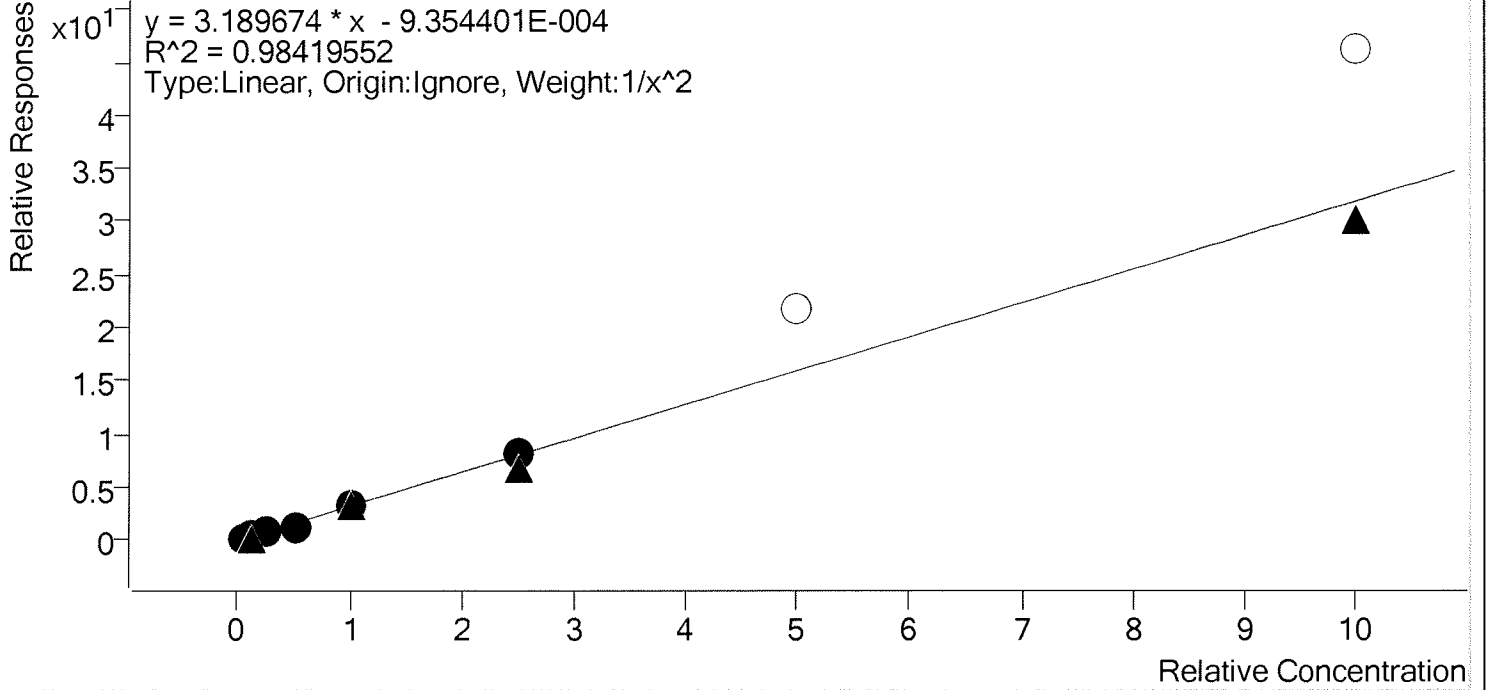


# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Mitragynine **Internal Standard** Buprenorphine-D4

Mitragynine - 8 Levels, 6 Levels Used, 8 Points, 6 Points Used, 4 QCs



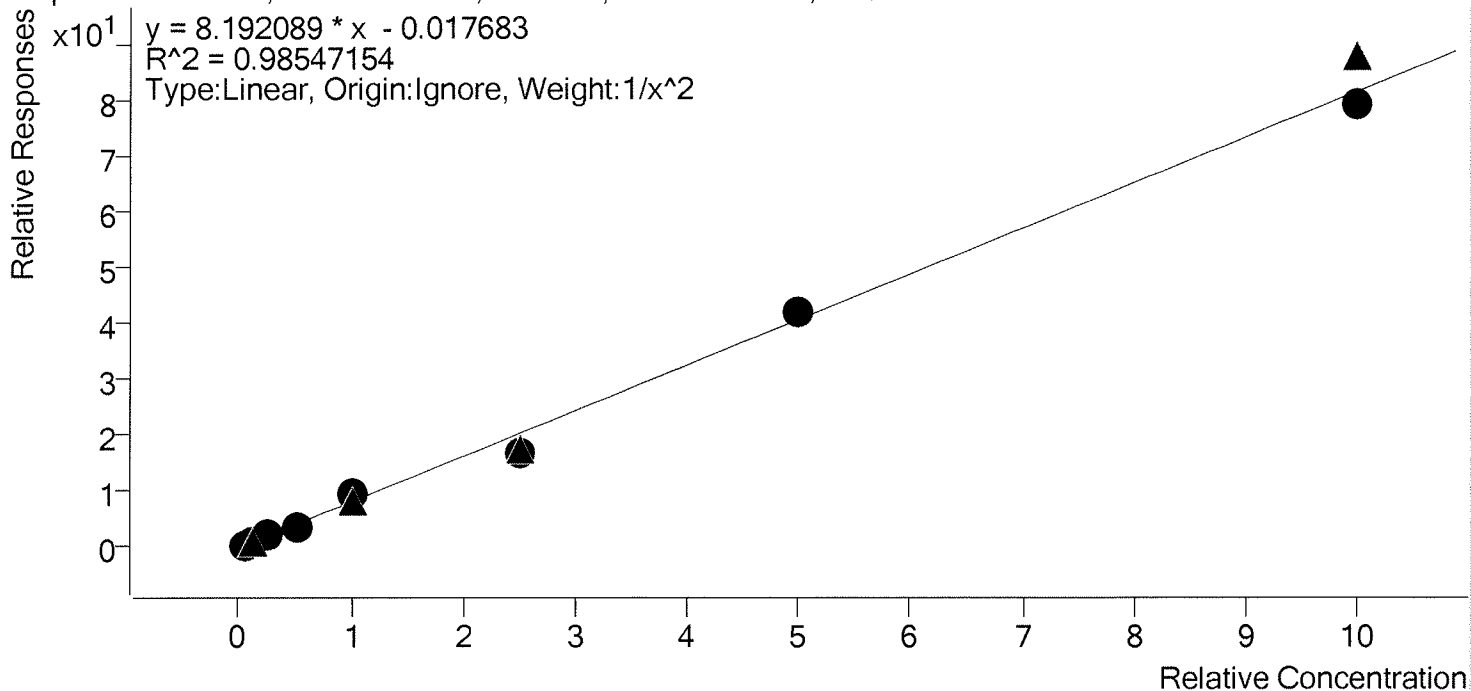
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.0	99.5
cal 2	2	✓	10.0	9.8	98.2
cal 3	3	✓	25.0	28.6	114.2
cal 4	4	✓	50.0	41.2	82.5
cal 5	5	✓	100.0	104.2	104.2
cal 6	6	✓	250.0	253.2	101.3
cal 7	7	×	500.0	677.7	135.5
cal 8	8	×	1000.0	1448.2	144.8

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Morphine **Internal Standard** Morphine-D6

Morphine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	98.1
cal 2	2	✓	10.0	10.0	99.8
cal 3	3	✓	25.0	27.9	111.6
cal 4	4	✓	50.0	46.1	92.2
cal 5	5	✓	100.0	115.5	115.5
cal 6	6	✓	250.0	205.3	82.1
cal 7	7	✓	500.0	516.3	103.3
cal 8	8	✓	1000.0	974.0	97.4

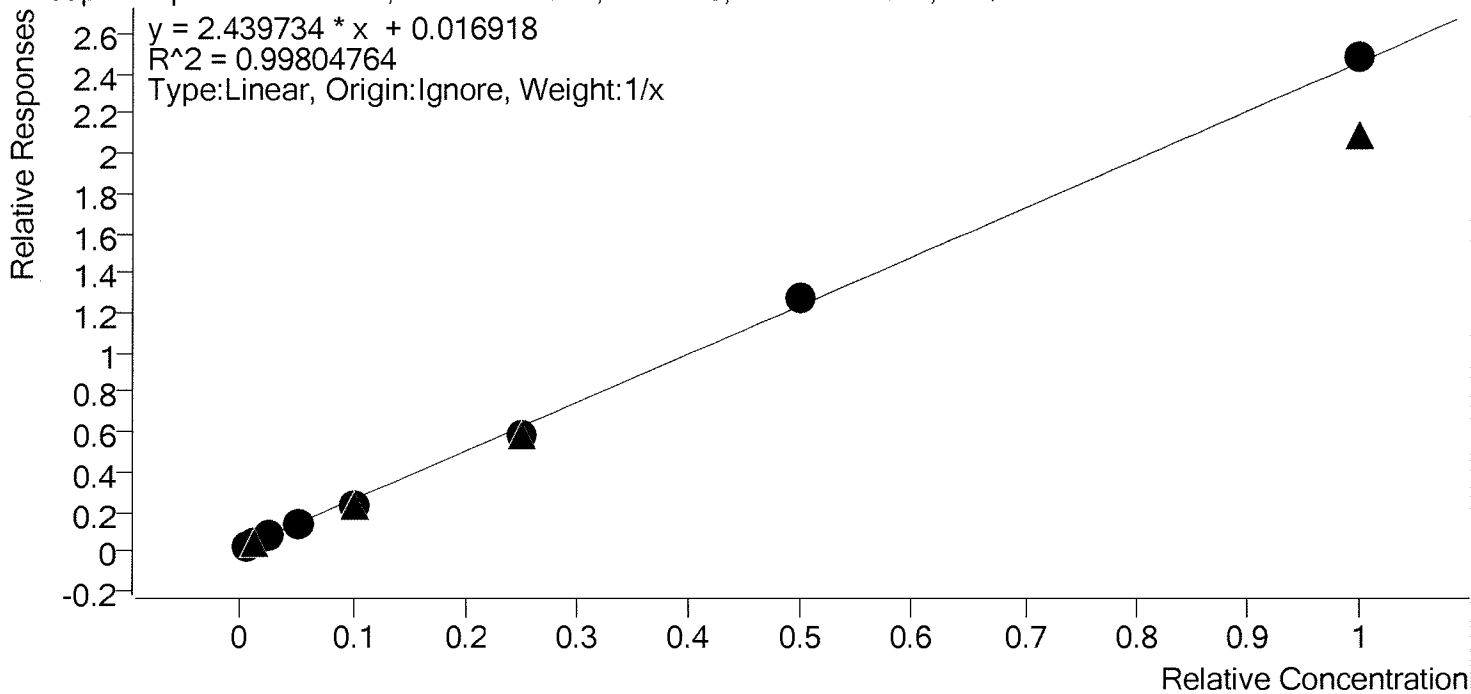
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Norbuprenorphine

**Internal Standard** Norbuprenorphine-D3

Norbuprenorphine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	0.5	0.5	92.0
cal 2	2	✓	1.0	1.1	112.0
cal 3	3	✓	2.5	2.8	111.1
cal 4	4	✓	5.0	4.9	98.3
cal 5	5	✓	10.0	9.0	89.9
cal 6	6	✓	25.0	23.1	92.6
cal 7	7	✓	50.0	51.5	102.9
cal 8	8	✓	100.0	101.1	101.1

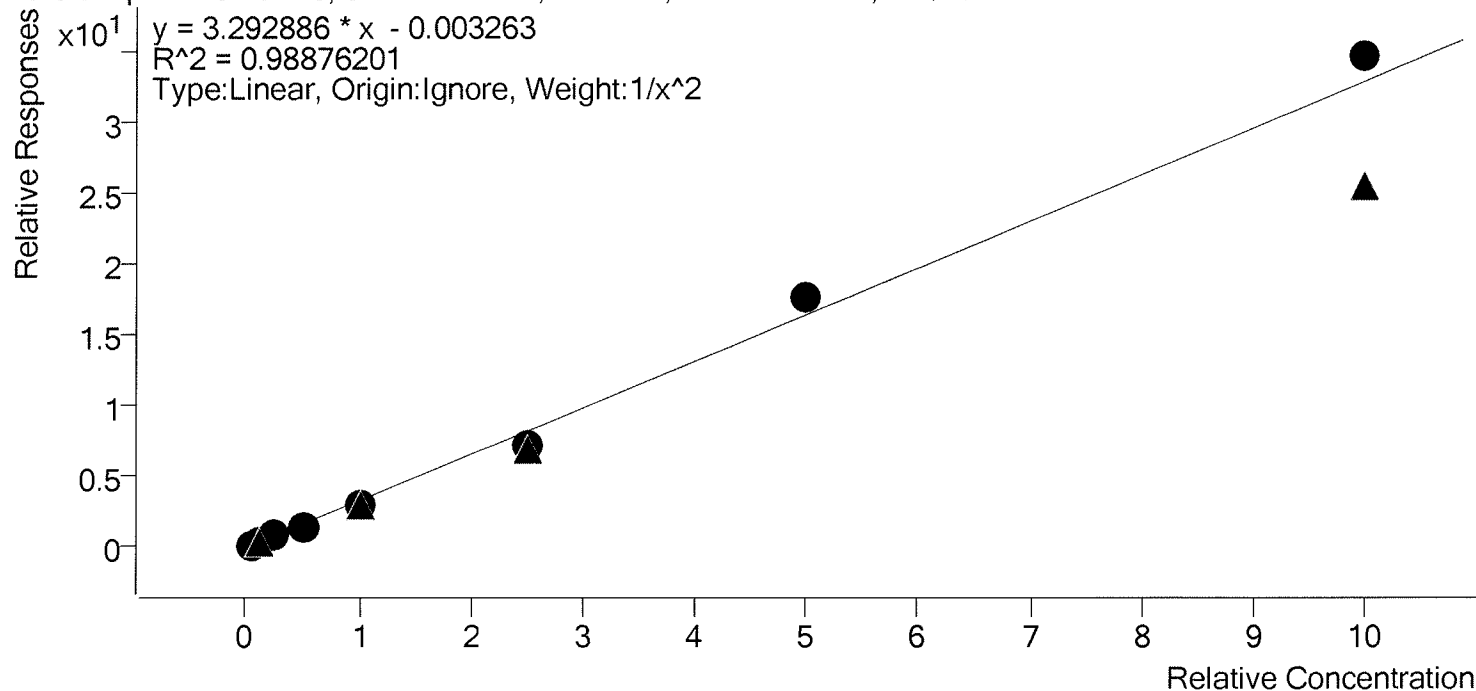
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Nordiazepam

**Internal Standard** Nordiazepam-D5

Nordiazepam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	98.3
cal 2	2	✓	10.0	9.9	99.3
cal 3	3	✓	25.0	29.0	116.2
cal 4	4	✓	50.0	46.4	92.9
cal 5	5	✓	100.0	92.9	92.9
cal 6	6	✓	250.0	219.2	87.7
cal 7	7	✓	500.0	536.3	107.3
cal 8	8	✓	1000.0	1054.1	105.4

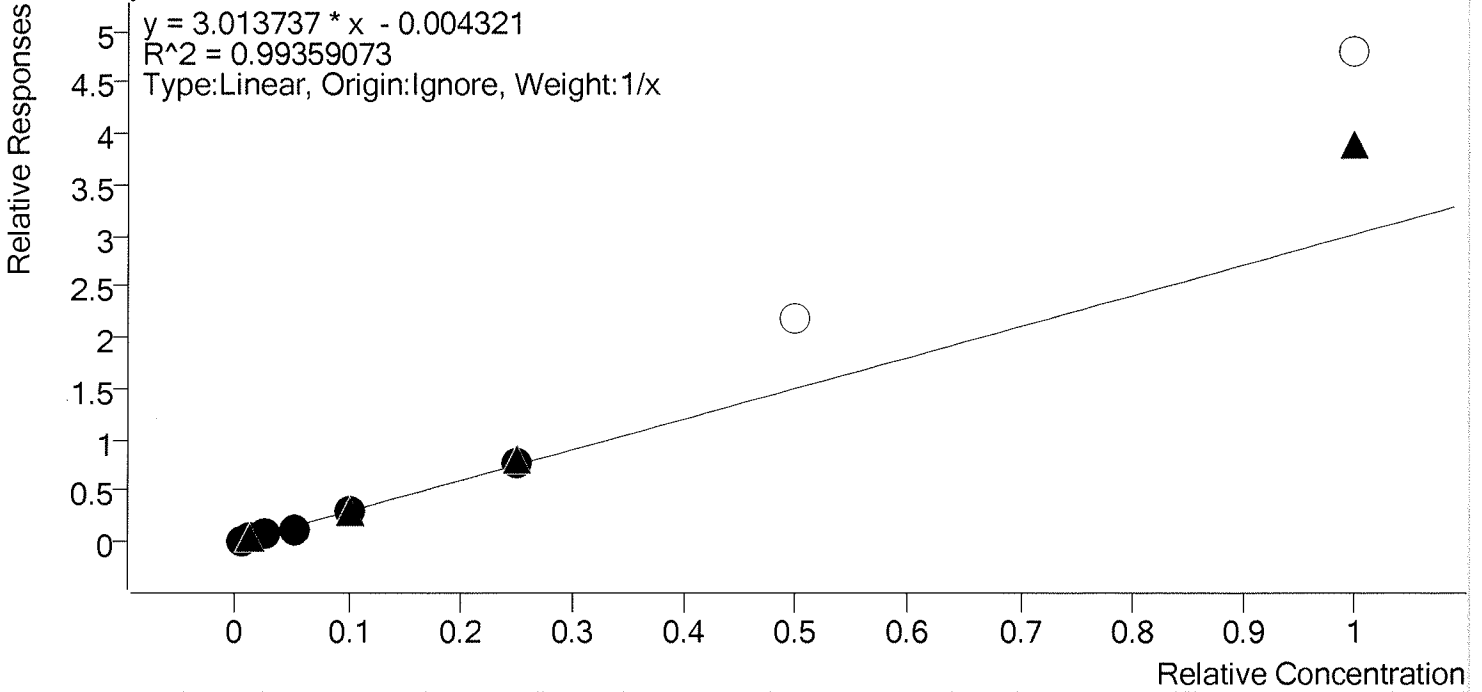
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Norfentanyl

**Internal Standard** Norfentanyl-D5

Norfentanyl - 8 Levels, 6 Levels Used, 8 Points, 6 Points Used, 4 QCs



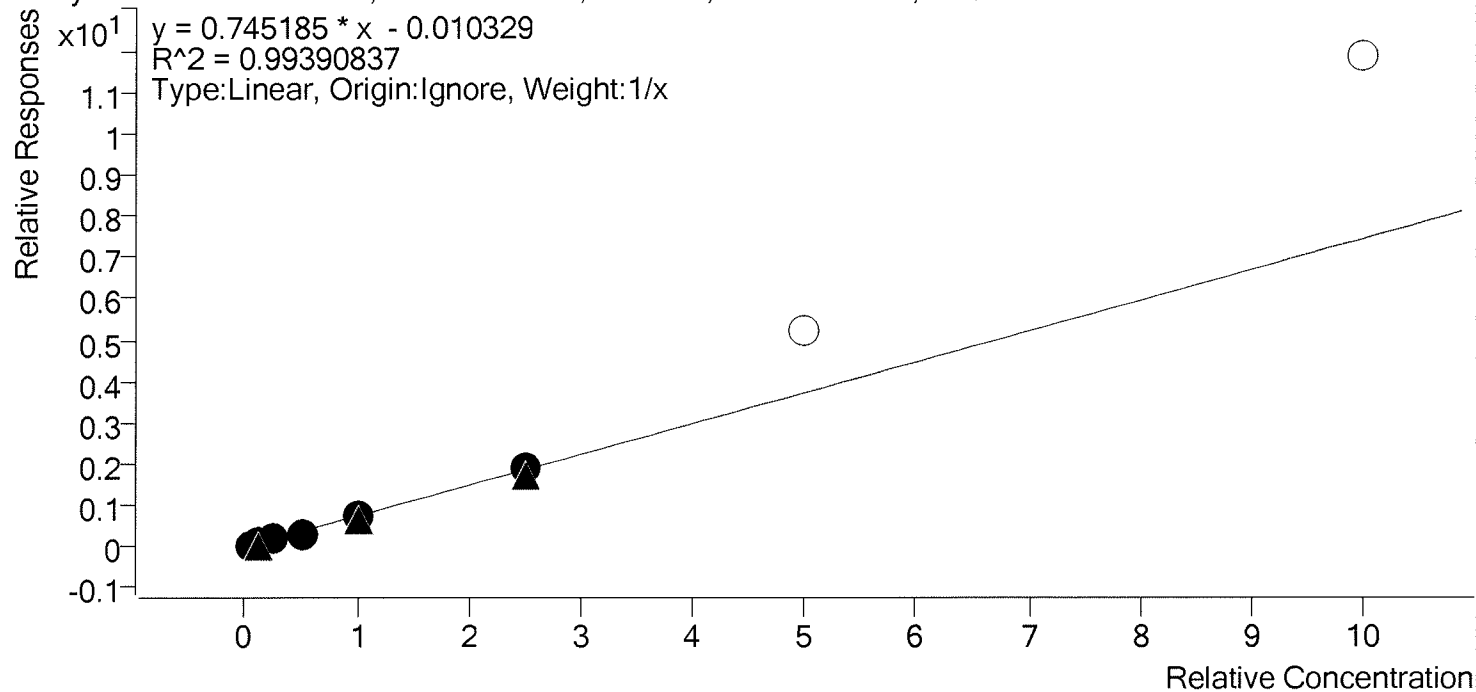
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	0.5	0.6	111.4
cal 2	2	✓	1.0	1.0	100.5
cal 3	3	✓	2.5	2.6	104.8
cal 4	4	✓	5.0	4.2	84.0
cal 5	5	✓	10.0	9.5	94.7
cal 6	6	✓	25.0	26.1	104.6
cal 7	7	×	50.0	72.7	145.4
cal 8	8	×	100.0	159.3	159.3

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Norhydrocodone **Internal Standard** Norhydrocodone-D3

Norhydrocodone - 8 Levels, 6 Levels Used, 8 Points, 6 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.3	105.9
cal 2	2	✓	10.0	9.8	98.4
cal 3	3	✓	25.0	27.8	111.1
cal 4	4	✓	50.0	40.9	81.9
cal 5	5	✓	100.0	100.3	100.3
cal 6	6	✓	250.0	255.8	102.3
cal 7	7	×	500.0	698.2	139.6
cal 8	8	×	1000.0	1592.7	159.3

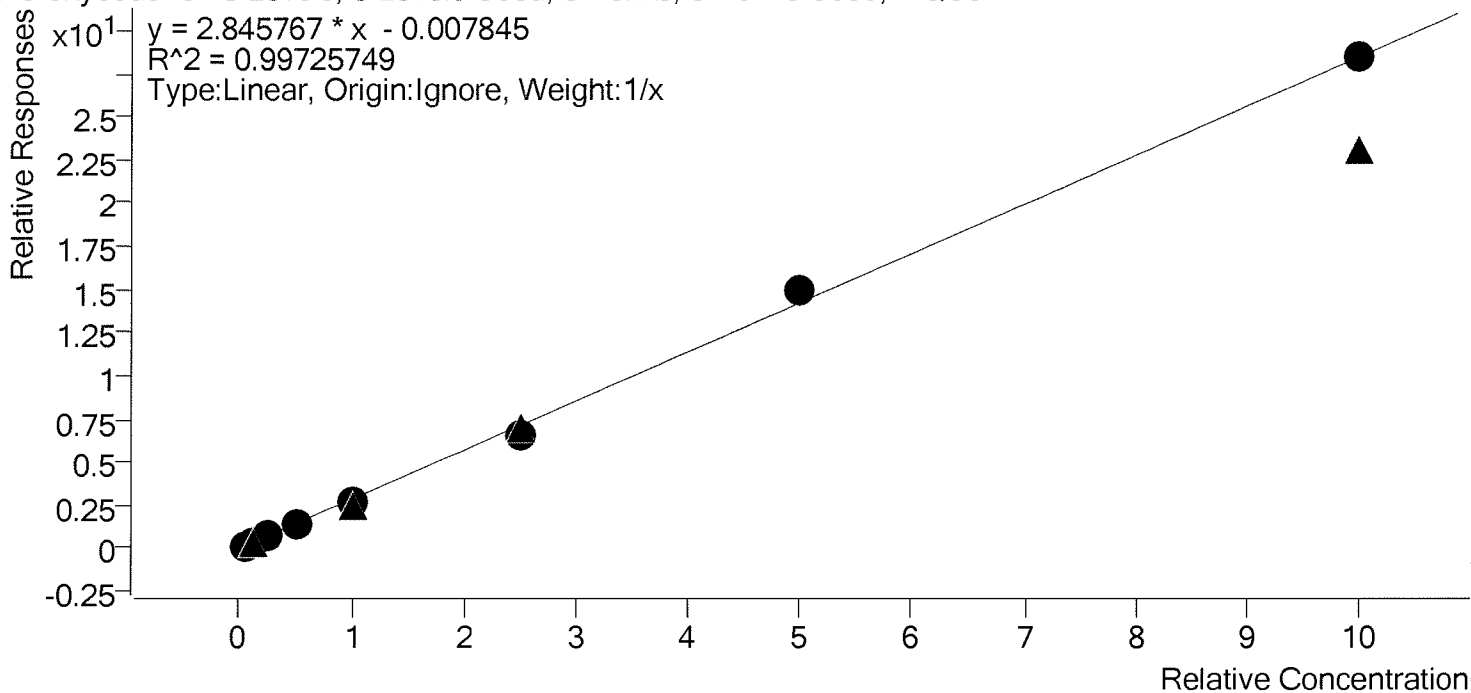
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Noroxycodone

**Internal Standard** Noroxycodone-D3

Noroxycodone - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



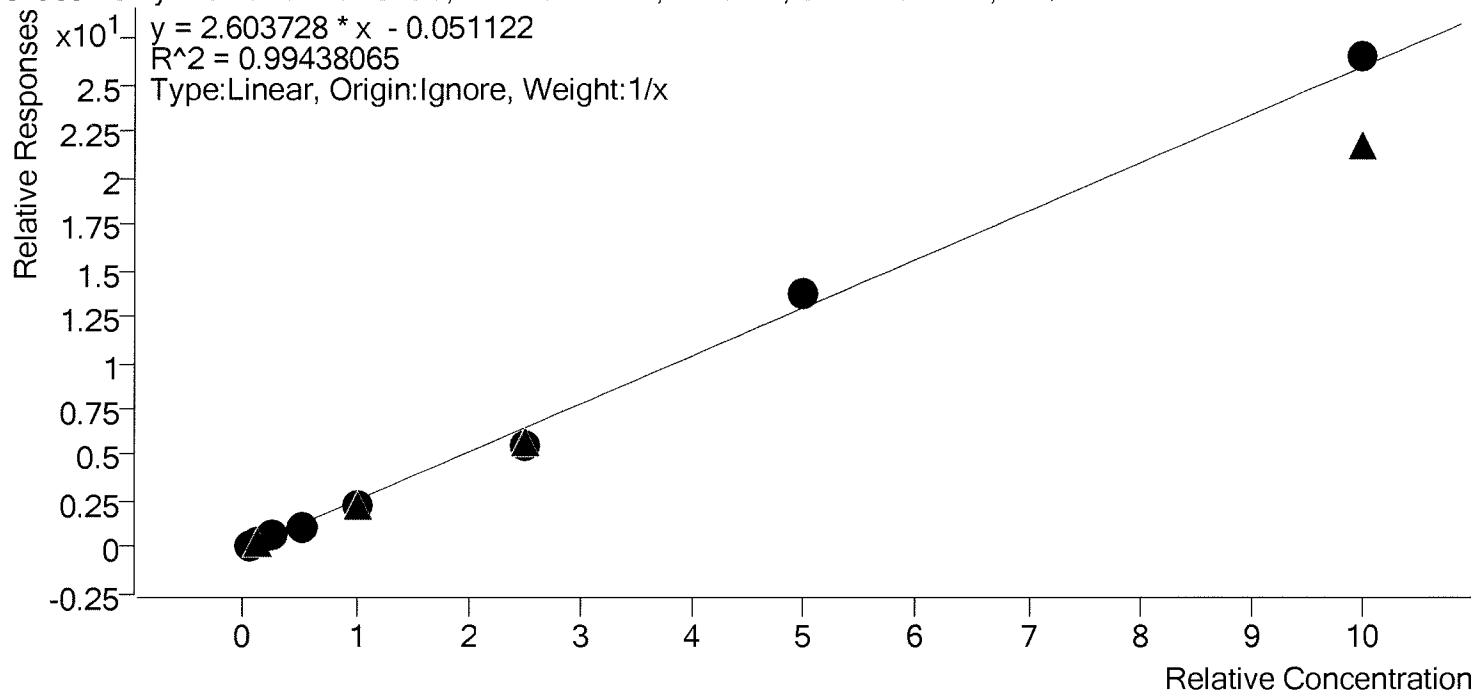
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.8	97.0
cal 2	2	✓	10.0	10.1	101.4
cal 3	3	✓	25.0	29.5	117.9
cal 4	4	✓	50.0	46.3	92.6
cal 5	5	✓	100.0	94.5	94.5
cal 6	6	✓	250.0	227.7	91.1
cal 7	7	✓	500.0	527.3	105.5
cal 8	8	✓	1000.0	999.7	100.0

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** O-desmethyl-tramadol **Internal Standard** O-desmethyl-tramadol-D6

O-desmethyl-tramadol - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.0	120.5
cal 2	2	✓	10.0	10.4	103.9
cal 3	3	✓	25.0	27.0	108.1
cal 4	4	✓	50.0	43.2	86.5
cal 5	5	✓	100.0	86.7	86.7
cal 6	6	✓	250.0	215.7	86.3
cal 7	7	✓	500.0	529.7	105.9
cal 8	8	✓	1000.0	1021.2	102.1

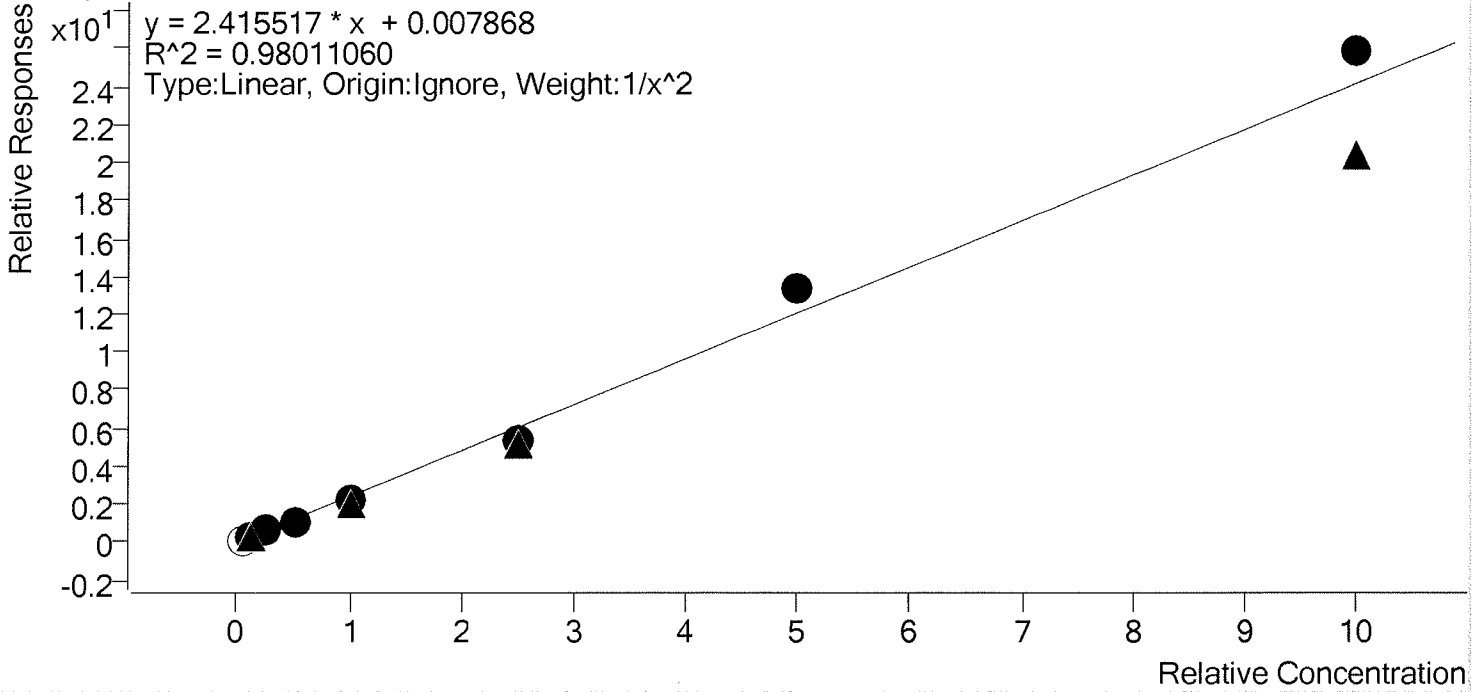


# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Oxazepam **Internal Standard** Oxazepam-D5

Oxazepam - 8 Levels, 7 Levels Used, 8 Points, 7 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	×	5.0	4.6	91.5
cal 2	2	✓	10.0	9.6	95.6
cal 3	3	✓	25.0	29.7	118.9
cal 4	4	✓	50.0	45.2	90.5
cal 5	5	✓	100.0	89.2	89.2
cal 6	6	✓	250.0	219.9	88.0
cal 7	7	✓	500.0	554.2	110.8
cal 8	8	✓	1000.0	1069.7	107.0

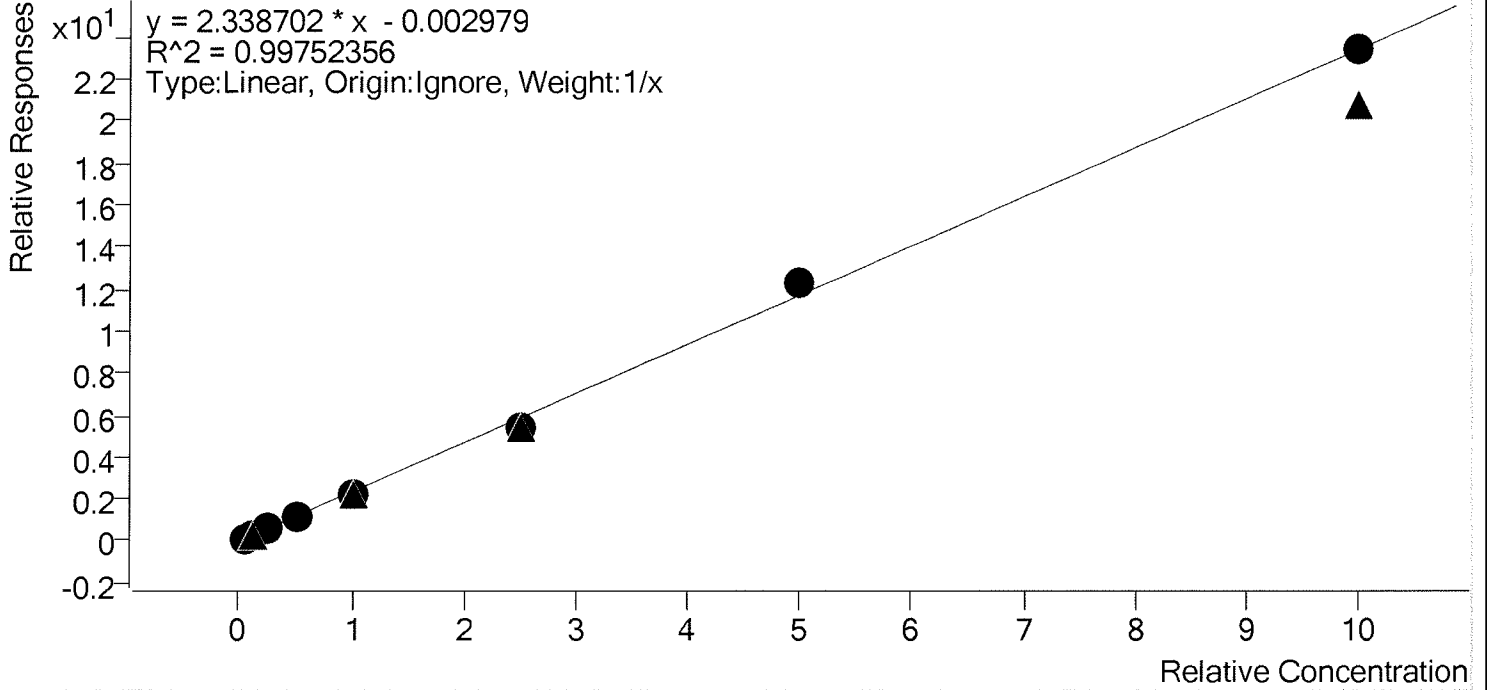
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\lam 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Oxycodone

**Internal Standard** Oxycodone-D6

Oxycodone - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



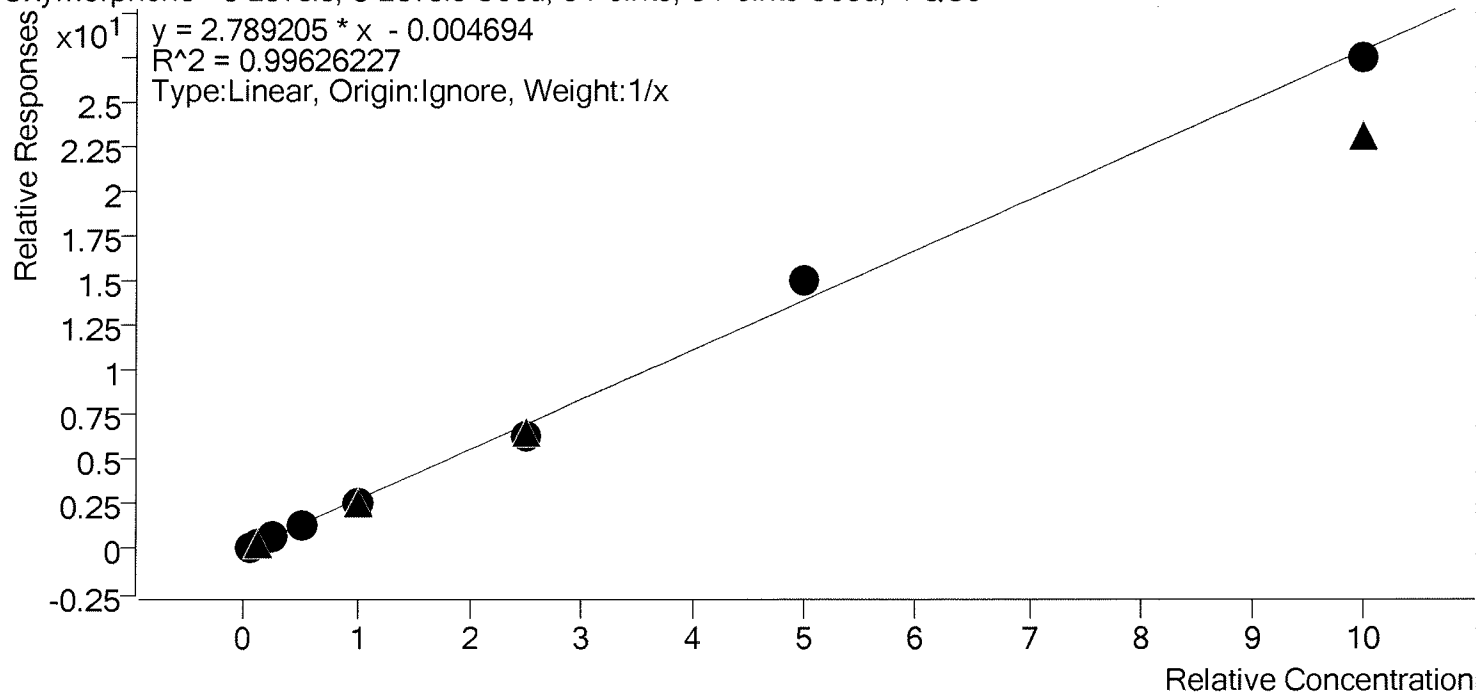
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.8	95.1
cal 2	2	✓	10.0	10.3	102.9
cal 3	3	✓	25.0	29.7	118.9
cal 4	4	✓	50.0	45.1	90.2
cal 5	5	✓	100.0	96.2	96.2
cal 6	6	✓	250.0	229.6	91.8
cal 7	7	✓	500.0	524.4	104.9
cal 8	8	✓	1000.0	999.9	100.0

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Oxymorphone **Internal Standard** Oxymorphone-D3

Oxymorphone - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



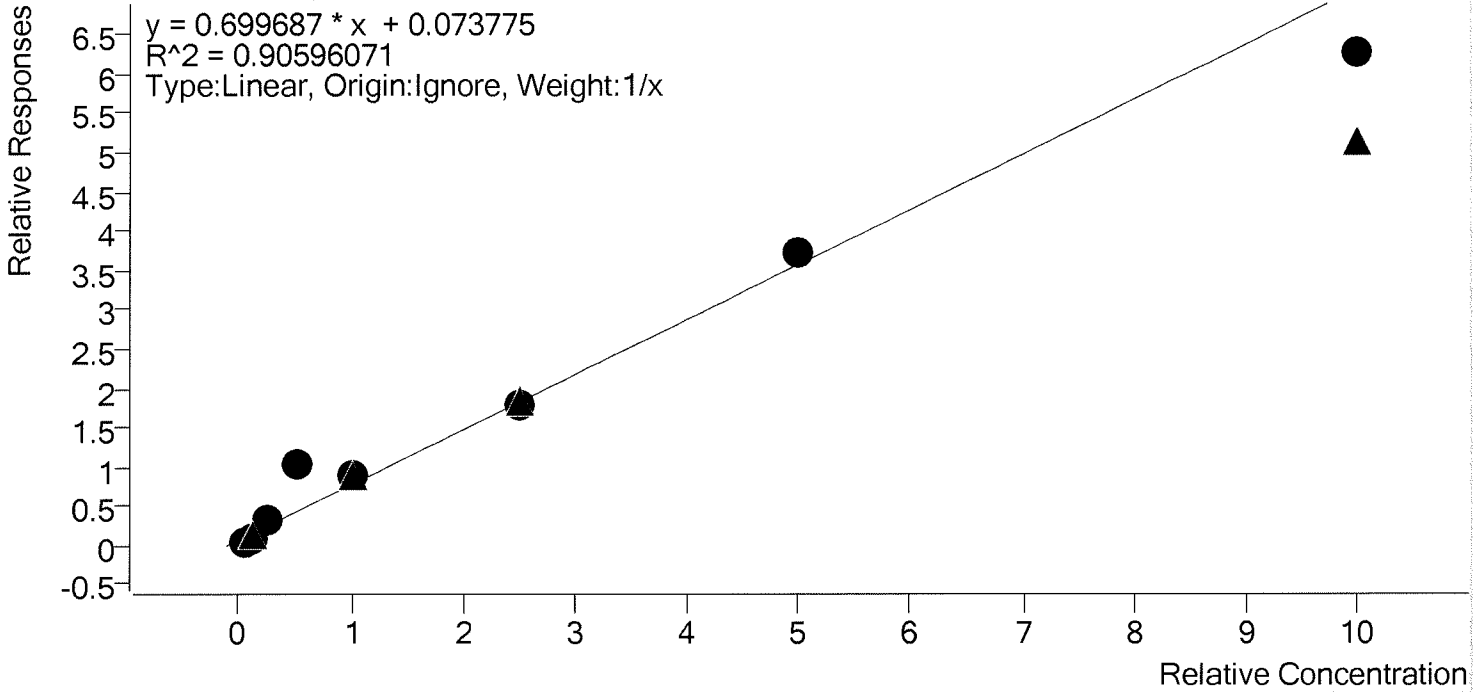
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	98.8
cal 2	2	✓	10.0	9.7	97.4
cal 3	3	✓	25.0	29.1	116.4
cal 4	4	✓	50.0	46.6	93.2
cal 5	5	✓	100.0	96.5	96.5
cal 6	6	✓	250.0	227.5	91.0
cal 7	7	✓	500.0	540.9	108.2
cal 8	8	✓	1000.0	984.6	98.5

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Phentermine **Internal Standard** Phentermine-D5

Phentermine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	0.0	0.0
cal 2	2	✓	10.0	5.3	52.6
cal 3	3	✓	25.0	33.5	133.9
cal 4	4	✓	50.0	135.7	271.5
cal 5	5	✓	100.0	118.6	118.6
cal 6	6	✓	250.0	246.8	98.7
cal 7	7	✓	500.0	519.0	103.8
cal 8	8	✓	1000.0	884.4	88.4

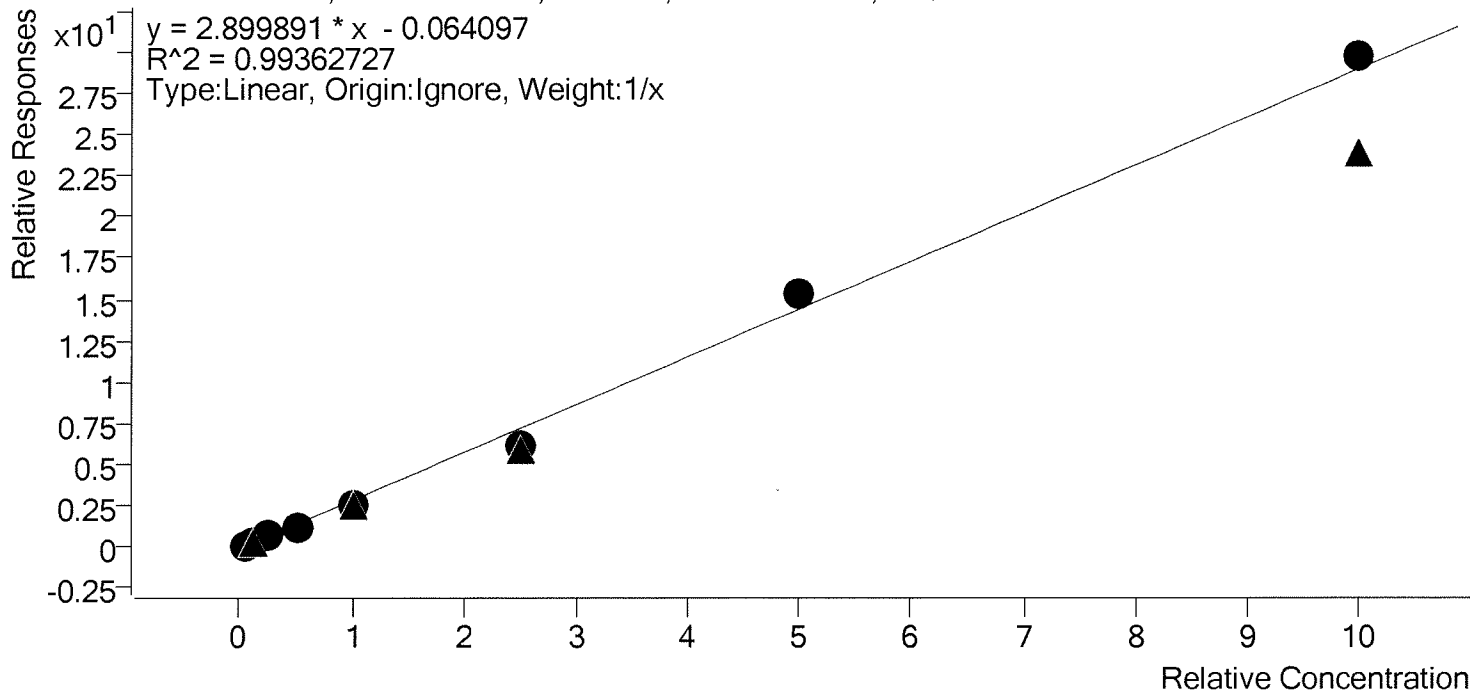
Not evaluated

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Promethazine **Internal Standard** Promethazine-D3

Promethazine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.2	123.0
cal 2	2	✓	10.0	10.5	105.1
cal 3	3	✓	25.0	26.9	107.6
cal 4	4	✓	50.0	42.1	84.3
cal 5	5	✓	100.0	86.5	86.5
cal 6	6	✓	250.0	212.8	85.1
cal 7	7	✓	500.0	528.7	105.7
cal 8	8	✓	1000.0	1026.2	102.6

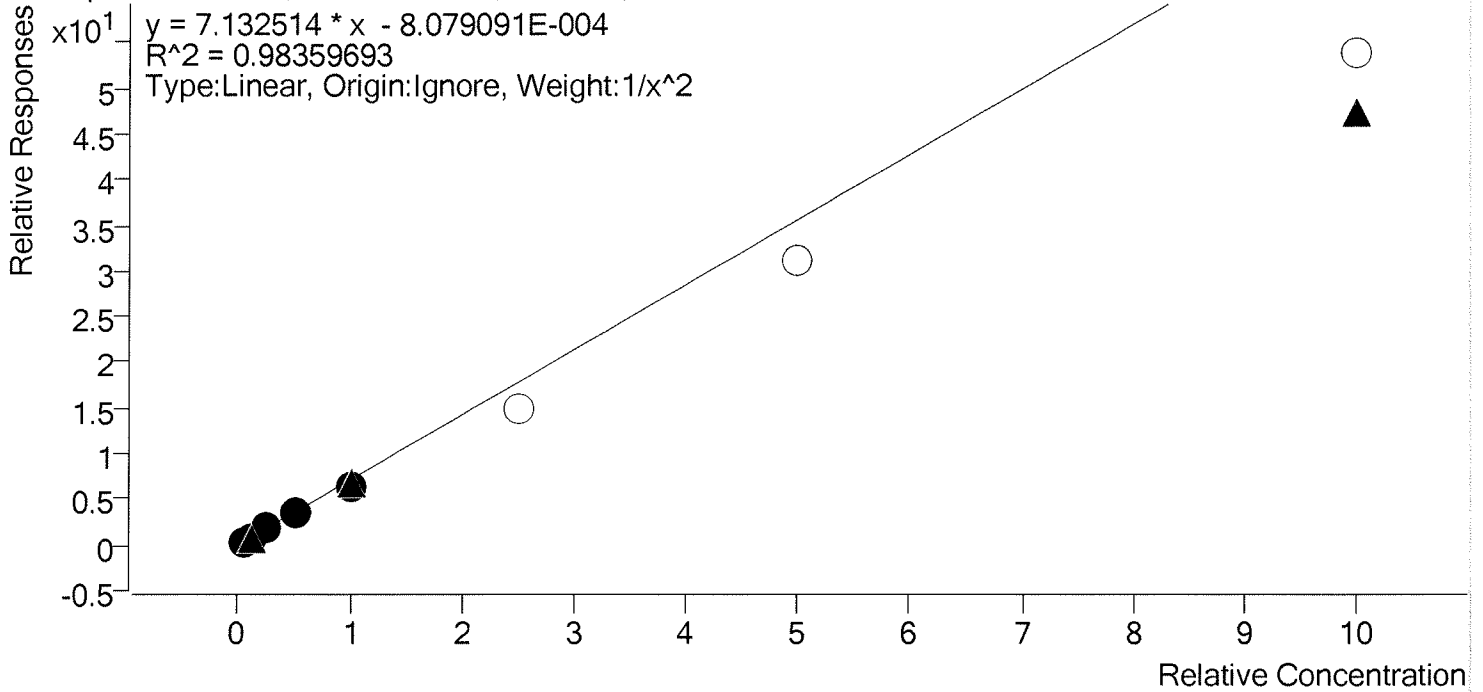
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Quetiapine

**Internal Standard** Quetiapine-D8

Quetiapine - 8 Levels, 5 Levels Used, 8 Points, 5 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	97.7
cal 2	2	✓	10.0	10.0	99.8
cal 3	3	✓	25.0	29.2	116.8
cal 4	4	✓	50.0	47.2	94.4
cal 5	5	✓	100.0	91.3	91.3
cal 6	6	×	250.0	208.6	83.4
cal 7	7	×	500.0	439.0	87.8
cal 8	8	×	1000.0	755.5	75.5

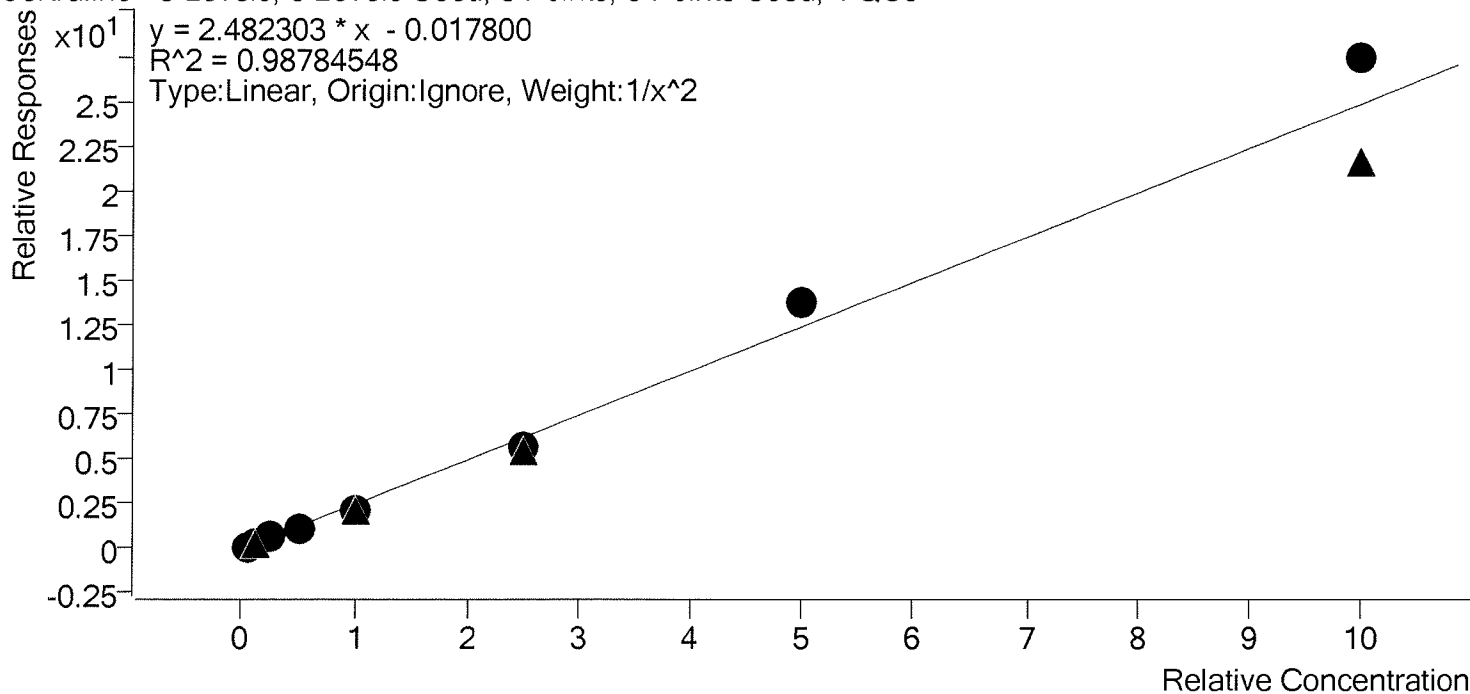
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Sertraline

**Internal Standard** Sertraline-D3

Sertraline - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.1	101.3
cal 2	2	✓	10.0	9.7	96.6
cal 3	3	✓	25.0	27.6	110.4
cal 4	4	✓	50.0	44.2	88.4
cal 5	5	✓	100.0	91.1	91.1
cal 6	6	✓	250.0	227.1	90.8
cal 7	7	✓	500.0	555.5	111.1
cal 8	8	✓	1000.0	1103.5	110.3

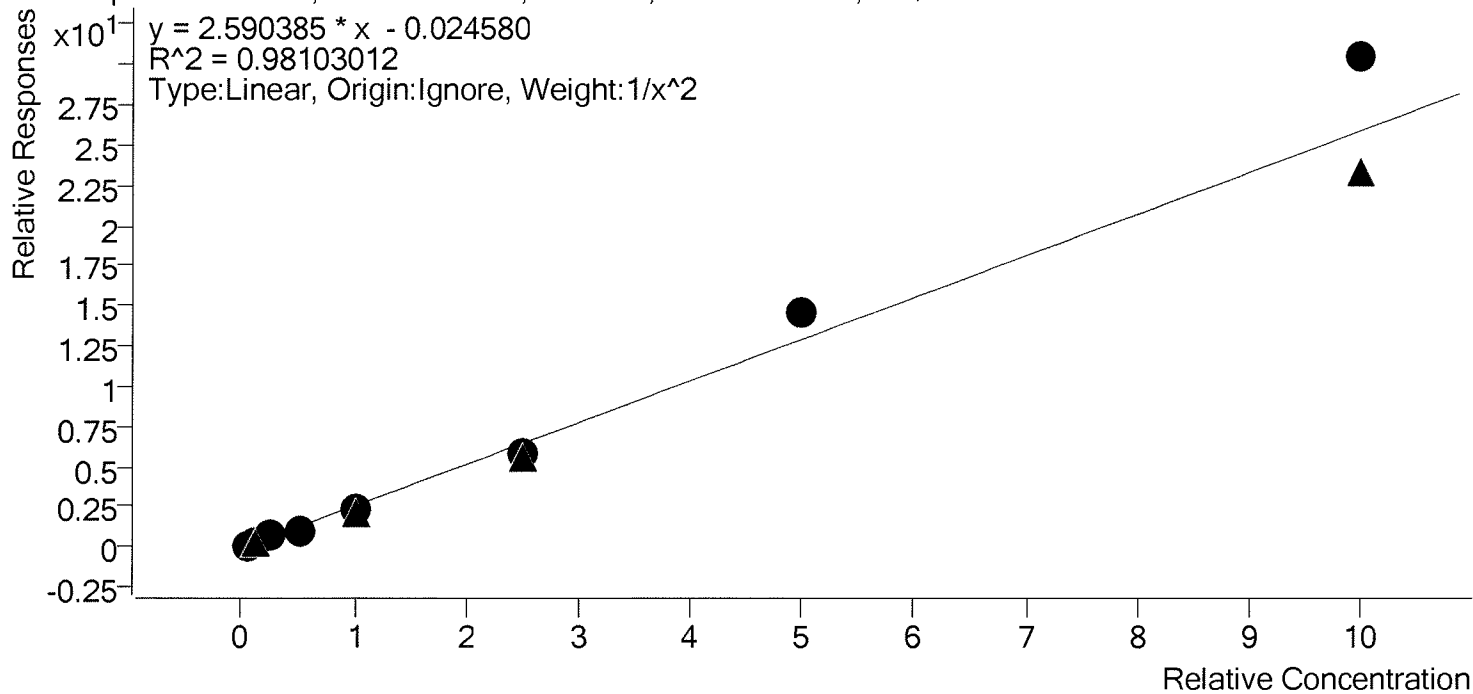
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Temazepam

**Internal Standard** Temazepam-D5

Temazepam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.1	102.1
cal 2	2	✓	10.0	9.7	97.4
cal 3	3	✓	25.0	26.5	106.2
cal 4	4	✓	50.0	42.5	84.9
cal 5	5	✓	100.0	88.7	88.7
cal 6	6	✓	250.0	223.1	89.2
cal 7	7	✓	500.0	568.3	113.7
cal 8	8	✓	1000.0	1177.2	117.7

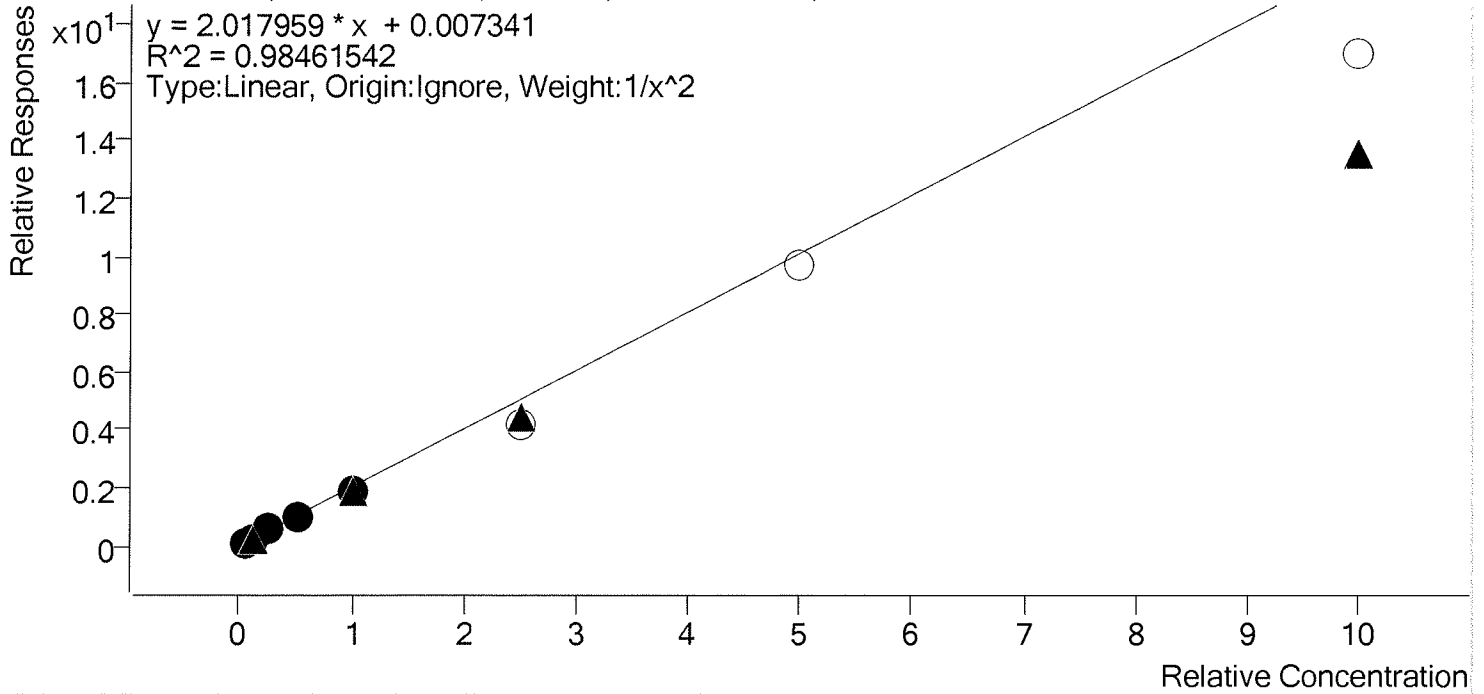


# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Tramadol **Internal Standard** Tramadol-13C-D3

Tramadol - 8 Levels, 5 Levels Used, 8 Points, 5 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	97.8
cal 2	2	✓	10.0	10.0	99.9
cal 3	3	✓	25.0	29.1	116.3
cal 4	4	✓	50.0	46.9	93.8
cal 5	5	✓	100.0	92.2	92.2
cal 6	6	×	250.0	210.1	84.0
cal 7	7	×	500.0	480.7	96.1
cal 8	8	×	1000.0	841.6	84.2

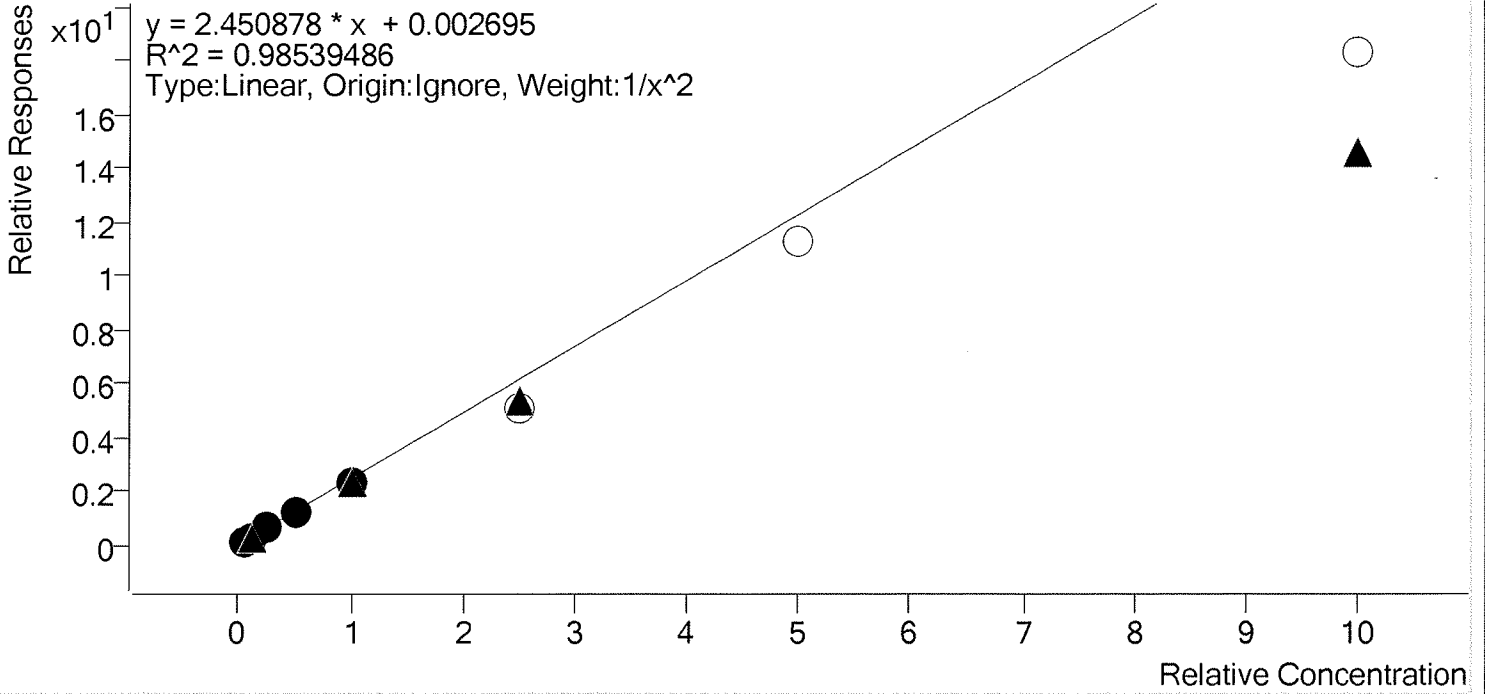
# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Trazodone

**Internal Standard** Trazodone-D6

Trazodone - 8 Levels, 5 Levels Used, 8 Points, 5 Points Used, 4 QCs



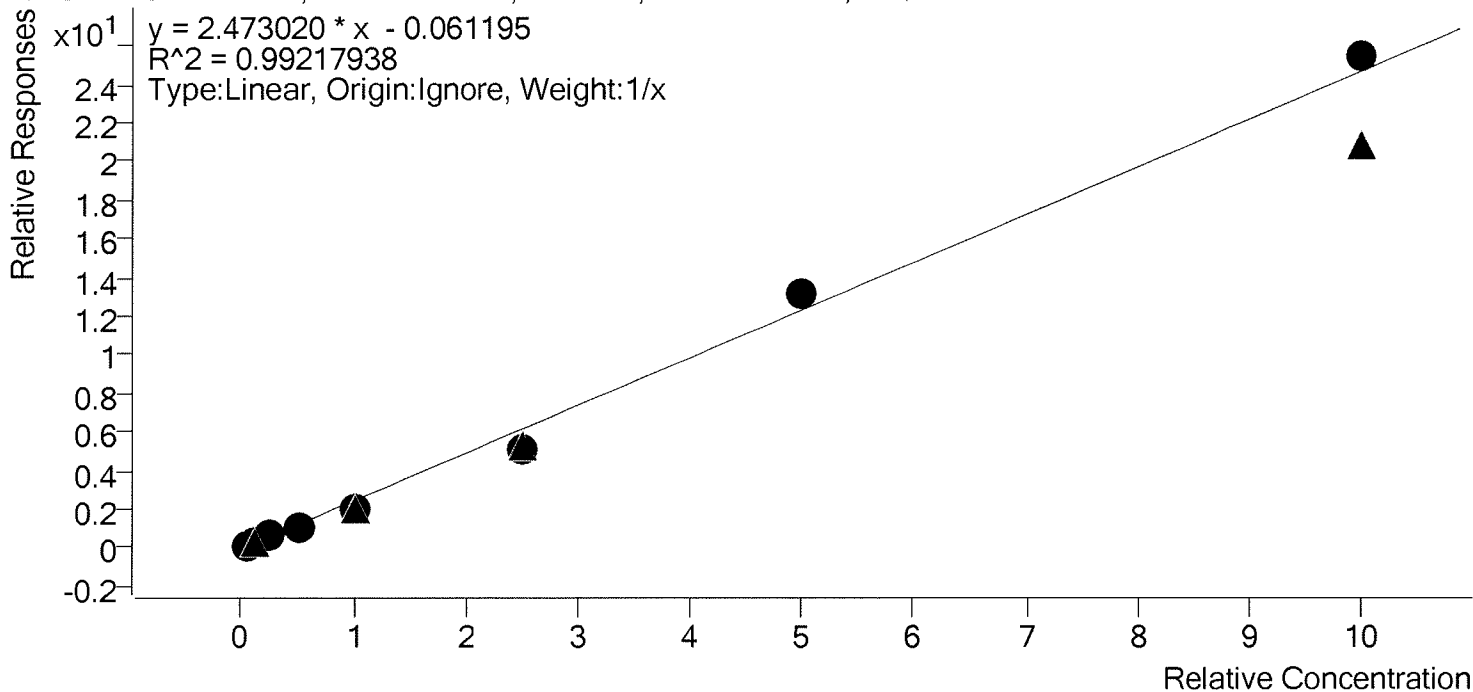
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.9	98.6
cal 2	2	✓	10.0	9.8	98.2
cal 3	3	✓	25.0	29.0	116.2
cal 4	4	✓	50.0	46.9	93.9
cal 5	5	✓	100.0	93.1	93.1
cal 6	6	×	250.0	208.7	83.5
cal 7	7	×	500.0	461.4	92.3
cal 8	8	×	1000.0	745.0	74.5

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Venlafaxine **Internal Standard** Venlafaxine-D6

Venlafaxine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



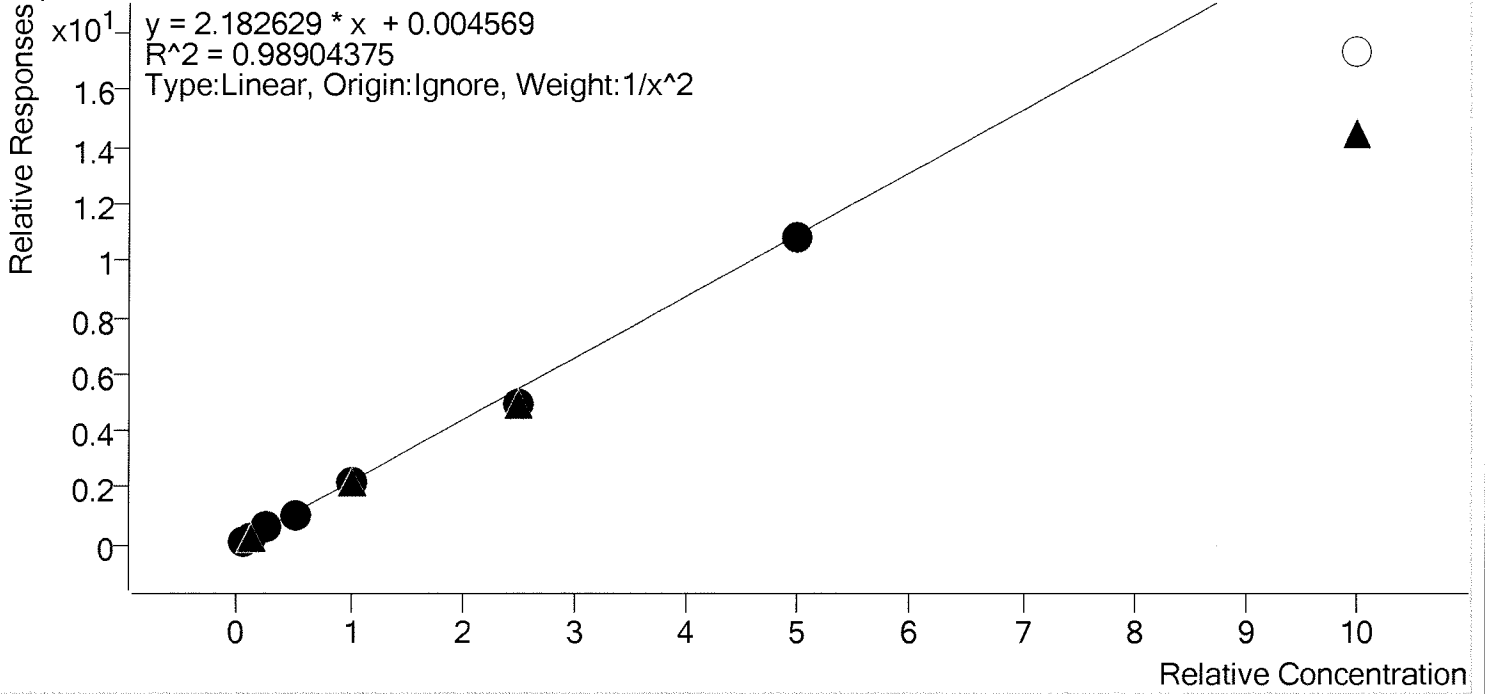
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	6.3	125.9
cal 2	2	✓	10.0	10.6	106.0
cal 3	3	✓	25.0	26.7	106.8
cal 4	4	✓	50.0	42.1	84.3
cal 5	5	✓	100.0	84.6	84.6
cal 6	6	✓	250.0	208.1	83.2
cal 7	7	✓	500.0	530.6	106.1
cal 8	8	✓	1000.0	1031.0	103.1

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
**Last Cal. Update** 3/26/2019 2:32 PM  
**Analyst Name** ISP\datastor  
**Analyte** Zolpidem **Internal Standard** Zolpidem-D6

Zolpidem - 8 Levels, 7 Levels Used, 8 Points, 7 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	4.8	96.4
cal 2	2	✓	10.0	10.1	101.1
cal 3	3	✓	25.0	29.7	118.6
cal 4	4	✓	50.0	48.3	96.6
cal 5	5	✓	100.0	97.5	97.5
cal 6	6	✓	250.0	225.6	90.2
cal 7	7	✓	500.0	497.6	99.5
cal 8	8	×	1000.0	794.1	79.4

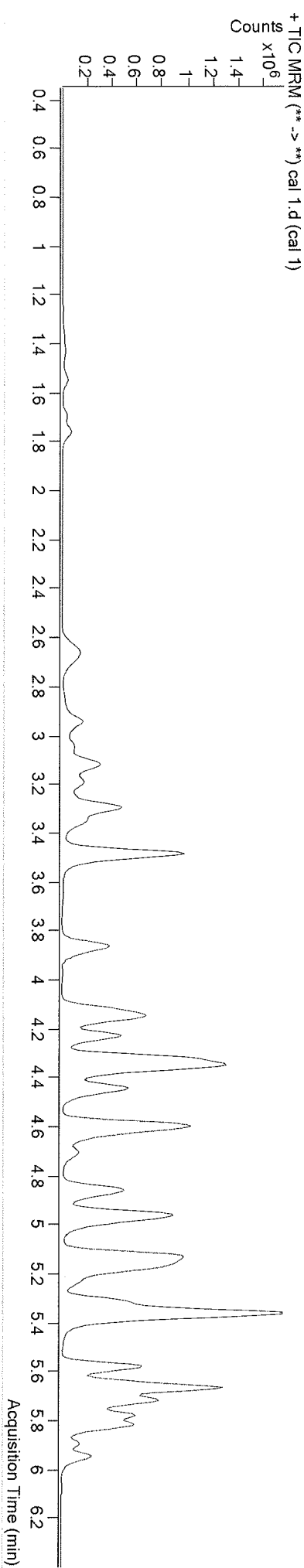
# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update  
 D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
 3/26/2019 2:32:23 PM

Instrument: 069697  
 Type: Cal  
 Acq. Method: mdq p1 cda 121818.m  
 Sample Position: P2-A1  
 Injection Volume: 5  
 Acq. Date-Time: 3/22/2019 3:37:38 PM  
 Sample Info.

Data File: cal 1.d  
 Sample Operator: Anne Nord  
 Comment:

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.374	3448	203	23.8	29	8973	4.91 ng/ml
Oxymorphone	1.551	18604	2261	44.7	949	139784	4.94 ng/ml
Hydromorphone	1.768	26250	6203	70.9	4015	202133	5.00 ng/ml
Dihydrocodeine	2.697	43271	4018	64.4	∞	479243	3.16 ng/ml
Codeine	2.732	15795	∞	103.1	13301	148418	5.05 ng/ml
Oxycodone	2.986	66503	1241	28.3	1656	614760	4.75 ng/ml
Noroxycodone	3.062	31328	239	45.5	∞	240677	4.85 ng/ml
Hydrocodone	3.149	41447	∞	40.4	191	505148	4.13 ng/ml
Norhydrocodone	3.205	4376	∞	43.3	36	150178	5.30 ng/ml
Amphetamine	3.207	222946	3932	55.3	3820	538856	4.82 ng/ml
6-MAM	3.262	2253	3399	77.6	3149	153261	0.49 ng/ml
Methamphetamine	3.361	244090	22	39.9	110	1518498	4.91 ng/ml
O-desmethyl-tramadol	3.495	268177	24886	6.7	376	2537158	6.02 ng/ml
Benzoylcegonine	3.999	3400	4015	8.2	∞	21917	5.07 ng/ml
Ketamine	4.137	110560	12647	36.8	∞	1061921	4.36 ng/ml
Norfentanyl	4.178	18361	4092	41.0	82	1472104	0.56 ng/ml
Dextrophan	4.230	46104	∞	216.8	4336	1143717	6.11 ng/ml
Tramadol	4.338	264536	16899	3.7	298	2495487	4.89 ng/ml

# ISPFS AM #28 Multi-Drug Quant. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Cocaine	4.356	123204	∞	42.7	∞	2301137	6.16 ng/ml
7-aminoclonazepam	4.363	46469	13612	83.6	∞	355807	5.02 ng/ml
Lamotrigine	4.427	13187	976	85.9	737	3847947	4.90 ng/ml
alpha-PVP	4.456	142612	11020	53.2	3849	1317544	6.42 ng/ml
Doxylamine	4.615	359490	85074	96.5	20577	3125986	4.89 ng/ml
Mirtazapine	4.711	223050	37167	45.6	14172	1317544	5.14 ng/ml
Bupropion	4.881	195185	5228	57.3	5102	1361333	4.54 ng/ml
Zolpidem	4.986	264310	25794	31.2	∞	2408455	4.82 ng/ml
Meprbamate	5.017	36093	18780	30.0	774	328218	4.87 ng/ml
Notruprenorphine	5.092	648	771	97.9	1220	23019	0.46 ng/ml
Venlafaxine	5.131	216903	4688	40.3	983	2296457	6.29 ng/ml
Fentanyl	5.175	12528	407	78.9	14700	1238842	0.50 ng/ml
Trazodone	5.236	151701	183226	78.2	33132	1227951	4.93 ng/ml
Mitragynine	5.296	25339	∞	36.6	30069	160551	4.98 ng/ml
Citalopram	5.312	115865	∞	46.9	68459	1036347	5.66 ng/ml
Dextromethorphan	5.343	85776	7138	75.6	9490	853744	5.05 ng/ml
Diphenhydramine	5.370	374487	3037	34.8	8140	3847947	6.37 ng/ml
Promethazine	5.587	117389	6804	32.3	601	1027373	6.15 ng/ml
Quetiapine	5.590	141173	115586	59.6	3804	405935	4.89 ng/ml
Cyclobenzaprine	5.649	120305	2483	10.8	814	940445	5.92 ng/ml
Methadone	5.673	230723	5552	45.8	927	2318855	6.02 ng/ml
a-hydroxyalprazolam	5.720	6895	618	59.8	287	80319	4.91 ng/ml
Fluoxetine	5.721	121678	9951	9.1	∞	933907	6.31 ng/ml
Cartsoprodol	5.738	63942	∞	58.0	737	643048	5.10 ng/ml
Oxazepam	5.770	25483	153	108.8 High	55	215190	4.58 ng/ml
Alprazolam	5.783	66787	734	111.0	666	469250	6.04 ng/ml
Sertraline	5.790	53404	3155	103.6	1867	495022	5.06 ng/ml
Buprenorphine	5.828	2166	250	16.1	∞	160551	0.51 ng/ml
Temazepam	5.831	105253	895	31.9	297	977234	5.11 ng/ml
Nordiazepam	5.908	41948	1449	61.0	2087	264475	4.92 ng/ml
Diazepam	5.954	49188	1644	86.3	∞	481172	5.46 ng/ml

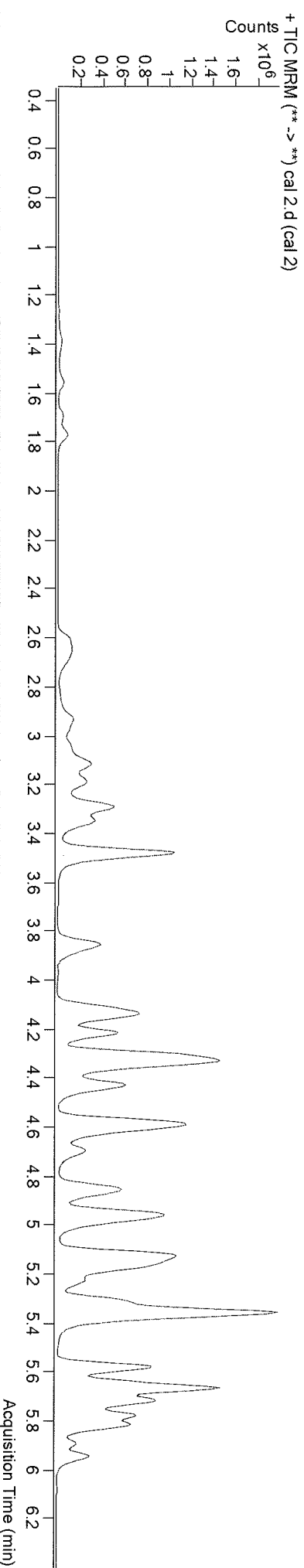
# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
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Instrument 069697  
 Type Cal  
 Acq. Method mdq p1 cda 121818.m  
 Sample Position P2-B1  
 Injection Volume 5  
 Acq. Date-Time 3/22/2019 3:48:17 PM  
 Sample Info.

Data File cal 2.d  
 Sample cal 2  
 Operator Anne Nord  
 Comment

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.394	6965	∞	23.7	157	8707	9.98 ng/ml
Oxymorphone	1.565	37094	1344	43.7	1631	138962	9.74 ng/ml
Hydromorphone	1.782	53314	4629	73.8	442	196155	9.62 ng/ml
Dihydrocodeine	2.644	89049	∞	63.6	129	477629	9.05 ng/ml
Codeine	2.719	31884	4471	102.5	7730	147762	9.73 ng/ml
Oxycodone	2.979	139742	1525	29.1	534	587686	10.29 ng/ml
Noroxycodone	3.062	67497	329	41.7	201	240334	10.14 ng/ml
Hydrocodone	3.143	87782	1553	40.6	756	435040	10.84 ng/ml
Norhydrocodone	3.205	9783	75	43.1	204	155311	9.84 ng/ml
Amphetamine	3.201	462288	1324	55.3	3001	560872	10.28 ng/ml
6-MAM	3.262	4800	∞	72.8	∞	151763	1.01 ng/ml
Methamphetamine	3.355	504432	59	40.3	147	1650862	9.86 ng/ml
O-desmethyl-tramadol	3.488	525775	∞	6.7	∞	2395539	10.39 ng/ml
Phentermine	3.895	130498	501	4.8	228	1180160	5.26 ng/ml
Benzylecgonine	3.992	6385	21302	8.8	∞	21595	9.64 ng/ml
Ketamine	4.131	223463	11952	37.9	1167	1053933	9.70 ng/ml
Norfentanyl	4.172	38576	5730	40.0	154	1486007	1.00 ng/ml
Dextrophan	4.223	96994	∞	214.3	∞	1140957	10.60 ng/ml

# ISPFS AM #28 Multi-Drug Quant. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.318	515572	16732	3.6	921	2467047	9.99 ng/ml
Cocaine	4.342	247189	21884	42.5	∞	2276019	10.41 ng/ml
7-aminoclonazepam	4.350	93548	8110	83.4	∞	349596	9.84 ng/ml
Lamotrigine	4.407	25891	1111	86.8	939	3782099	9.87 ng/ml
alpha-PVP	4.442	293449	18558	53.8	2693	1314155	10.60 ng/ml
Doxylamine	4.609	731956	∞	97.7	7730	3104867	9.91 ng/ml
Mirtazapine	4.704	460600	316769	45.1	36062	1314155	9.63 ng/ml
Bupropion	4.874	394785	8003	58.3	3646	1366652	9.73 ng/ml
Zolpidem	4.979	548341	48274	30.4	10237	2433813	10.11 ng/ml
Meproramate	5.010	74911	18997	28.7	∞	318840	10.09 ng/ml
Norduprenorphine	5.085	1002	3148	91.4	∞	22653	1.12 ng/ml
Venlafaxine	5.124	455762	121455	39.7	1448	2267961	10.60 ng/ml
Fentanyl	5.168	26058	924	75.8	∞	1247965	0.97 ng/ml
Trazodone	5.229	303410	19903	82.1	30432	1246529	9.82 ng/ml
Mitragynine	5.296	50431	58606	40.8	13501	161425	9.82 ng/ml
Citalopram	5.312	237690	14786	46.9	84380	1027016	10.30 ng/ml
Dextromethorphan	5.343	171802	∞	76.3	∞	837868	9.66 ng/ml
Diphenhydramine	5.370	769542	5724	35.2	75222	3782099	10.50 ng/ml
Promethazine	5.580	280280	15962	31.7	2734	1164772	10.51 ng/ml
Quetiapine	5.590	287901	301966	58.9	175363	404988	9.98 ng/ml
Cyclobenzaprine	5.649	253960	5456	10.8	1485	958306	10.41 ng/ml
Methadone	5.673	485413	21300	44.7	4322	2325643	10.44 ng/ml
a-hydroxyalprazolam	5.713	14640	426	58.4	268	79338	10.08 ng/ml
Fluoxetine	5.721	252699	9419	9.2	80521	928477	10.66 ng/ml
Carisoprodol	5.738	128669	6575	58.6	937	629906	9.66 ng/ml
Oxazepam	5.770	50624	∞	86.0	54	211984	9.56 ng/ml
Alprazolam	5.783	136734	2772	109.9	2500	465981	10.40 ng/ml
Setraline	5.783	108678	8857	101.7	603	489667	9.66 ng/ml
Buprenorphine	5.828	4294	228	17.1	573	161425	1.00 ng/ml
Temazepam	5.831	219811	1203	30.5	128	965550	9.74 ng/ml
Nordiazepam	5.908	86721	∞	62.1	∞	267826	9.93 ng/ml
Diazepam	5.954	107244	2777	85.5	3533	501890	10.23 ng/ml



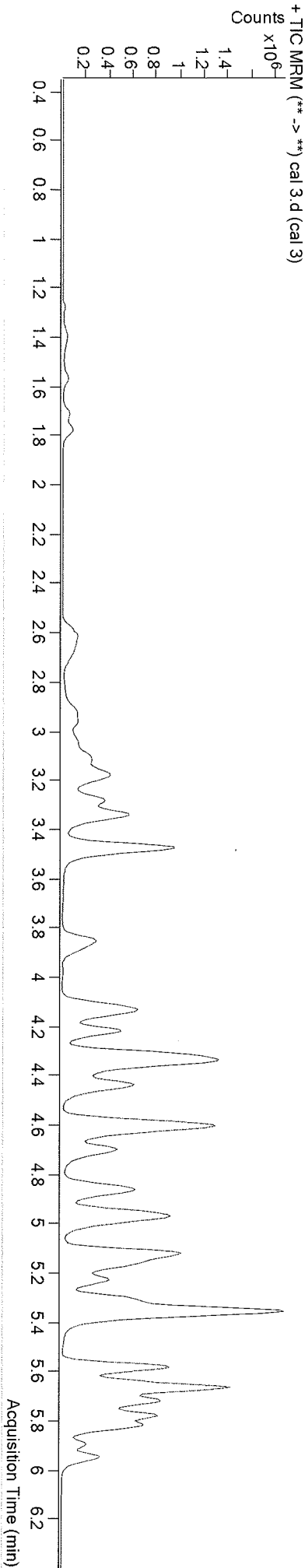
# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update 3/26/2019 2:32:23 PM  
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Instrument 069697  
 Type Cal  
 Acq. Method mdq p1 cda 121818.m  
 Sample Position P2-C1  
 Injection Volume 5  
 Acq. Date-Time 3/22/2019 3:58:54 PM  
 Sample Info.

Data File cal 3.d  
 Sample cal 3  
 Operator Anne Nord  
 Comment

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.280	12161	∞	22.1	156	5364	27.89 ng/ml
Oxymorphone	1.571	67965	1288	43.0	1348	84208	29.11 ng/ml
Hydromorphone	1.782	95313	4290	66.7	3249	110943	28.73 ng/ml
Dihydrocodeine	2.623	189848	18580	60.6	11420	314455	34.58 ng/ml
Codeine	2.665	62083	∞	103.5	1894	102610	26.27 ng/ml
Oxycodone	2.966	294375	1888	29.1	1275	425412	29.72 ng/ml
Noroxycodone	3.048	136931	2166	42.0	1370	164794	29.47 ng/ml
Hydrocodone	3.136	185204	916	35.6	3172	347631	29.40 ng/ml
Norhydrocodone	3.192	20509	445	41.2	250	104258	27.78 ng/ml
Amphetamine	3.187	916963	20465	55.1	4030	414108	28.80 ng/ml
6-MAM	3.249	9603	∞	76.2	∞	104921	2.87 ng/ml
Methamphetamine	3.348	965055	1369	39.6	552	1139732	28.36 ng/ml
O-desmethyl-tramadol	3.482	1100556	65965	6.6	∞	1686387	27.03 ng/ml
Phentermine	3.888	257623	∞	4.8	399	836380	33.48 ng/ml
Benzylecgonine	3.985	11789	∞	7.8	176	13743	27.95 ng/ml
Ketamine	4.131	449272	∞	37.5	4896	722262	30.01 ng/ml
Norfentanyl	4.172	78395	12394	40.5	920	1050216	2.62 ng/ml
Dextrophan	4.223	189820	18148	218.4	∞	762269	27.09 ng/ml

# ISPFS AM #28 Multi-Drug Quant. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.324	1025769	135285	3.6	1007	1726512	29.08 ng/ml
Cocaine	4.349	497049	∞	42.0	∞	1512250	27.41 ng/ml
7-aminoclonazepam	4.356	188478	30897	85.7	∞	247659	27.23 ng/ml
Metoprolol	4.398	129522	5846	96.2	∞	111223	3.20 ng/ml
Lamotrigine	4.413	51129	5895	85.7	∞	2514014	29.51 ng/ml
alpha-PVP	4.449	579577	49739	53.8	8242	878773	26.45 ng/ml
Doxylamine	4.609	1455024	258353	96.9	217152	2090125	29.04 ng/ml
Mirtazapine	4.704	896083	81167	45.4	2292	878773	26.20 ng/ml
Bupropion	4.874	779619	207442	58.6	9179	912466	29.89 ng/ml
Zolpidem	4.979	1081346	1597550	30.7	12634	1658791	29.66 ng/ml
Meperbamate	5.010	153747	27102	29.2	1512	225726	28.71 ng/ml
Norbutanophine	5.078	1493	701	96.8	2071	17628	2.78 ng/ml
Venlafaxine	5.124	926138	76258	39.5	∞	1545738	26.70 ng/ml
Fentanyl	5.168	52113	6922	75.6	52118	824940	2.83 ng/ml
Trazodone	5.229	592539	24141	78.0	32803	829274	29.04 ng/ml
Mitragynine	5.296	101225	92901	38.9	76038	111223	28.56 ng/ml
Citalopram	5.305	468876	17724	48.1	∞	684089	27.89 ng/ml
Dextromethorphan	5.336	347192	24621	75.1	∞	559793	27.94 ng/ml
Diphenhydramine	5.364	1552495	44325	34.3	∞	2514014	26.58 ng/ml
Promethazine	5.580	533108	34984	31.4	1984	744532	26.90 ng/ml
Quetiapine	5.590	572030	537185	58.9	645207	274721	29.20 ng/ml
Clonazepam	5.646	150394	3185	33.6	54882	81592	25.74 ng/ml
Cyclobenzaprine	5.649	478263	183728	10.6	2786	608789	27.44 ng/ml
Methadone	5.673	955670	12352	45.2	26783	1547823	27.00 ng/ml
a-hydroxylprazolam	5.713	34572	∞	57.0	427	63180	29.08 ng/ml
Fluoxetine	5.721	456869	79054	9.3	29247	567102	27.05 ng/ml
Carsiprodol	5.738	282176	4699	58.7	1592	465237	27.18 ng/ml
Lorazepam	5.761	79790	785	59.3	311	339528	27.20 ng/ml
Oxazepam	5.770	123741	1582	72.8	1136	170423	29.73 ng/ml
Alprazolam	5.783	303249	∞	110.6	4147	339528	27.74 ng/ml
Sepraline	5.783	194669	440	101.7	∞	291804	27.59 ng/ml
Buprenorphine	5.828	8136	329	18.1	∞	111223	2.74 ng/ml
Temazepam	5.831	490262	7379	30.7	978	739426	26.54 ng/ml
Nordiazepam	5.908	190903	8039	61.4	∞	200291	29.04 ng/ml
Diazepam	5.954	232533	4374	85.6	10614	363618	28.46 ng/ml

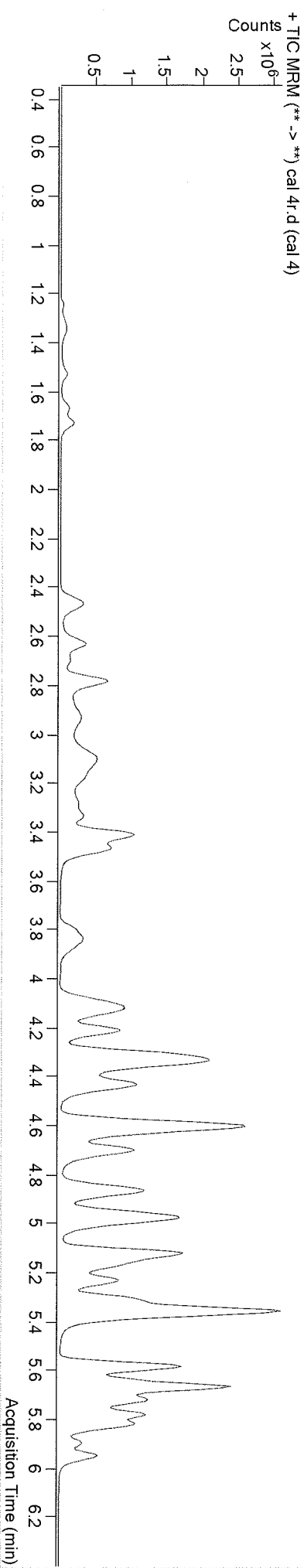
# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update 3/26/2019 2:32:23 PM  
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Instrument 069697  
 Type Cal  
 Acq. Method mdq p1 cda 121818.m  
 Sample Position P2-D1  
 Injection Volume 5  
 Acq. Date-Time 3/22/2019 4:41:25 PM  
 Sample Info.

Data File cal 4r.d  
 Sample cal 4  
 Operator Anne Nord  
 Comment

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.360	20964	249	23.8	∞	5579	46.09 ng/ml
Oxymorphone	1.531	150882	1897	43.8	1344	116488	46.61 ng/ml
Hydromorphone	1.735	225379	5890	73.2	6320	171182	43.61 ng/ml
Dihydrocodeine	2.469 Low	357782	2784	61.7	22002	409785	51.06 ng/ml
Codeine	2.490 Low	133959	31	93.9	27014	118430	48.66 ng/ml
Oxycodone	2.939	145496	602	30.2	96	138296	45.11 ng/ml
Noroxycodone	3.035	62691	∞	42.3	179	47848	46.32 ng/ml
Hydrocodone	3.129	152641	1240	39.0	818	185334	45.71 ng/ml
Northacodone	3.185	13511	72	37.1	21	45834	40.94 ng/ml
Amphetamine	3.187	392896	187	50.9	881	104379	49.45 ng/ml
6-MAM	3.242	7084	291	77.5	2195	49327	4.49 ng/ml
Methamphetamine	3.341	952827	∞	37.0	625	616430	52.24 ng/ml
O-desmethyl-Tramadol	3.475	1041396	17775	6.5	2671	968816	43.25 ng/ml
Phentermine	3.875	621224	869	4.7	1121	606960	135.74 ng/ml
Benzoylcegonine	3.972	29001	44388	7.7	∞	21814	43.31 ng/ml
Ketamine	4.117	1052264	64415	37.6	10895	1041952	49.21 ng/ml
Norfentanyl	4.158	185186	14043	40.5	1632	1515143	4.20 ng/ml
Dextroprphan	4.217	439800	566	217.2	853	1087295	42.72 ng/ml

# ISPFS AM #28 Multi-Drug Quant. Results

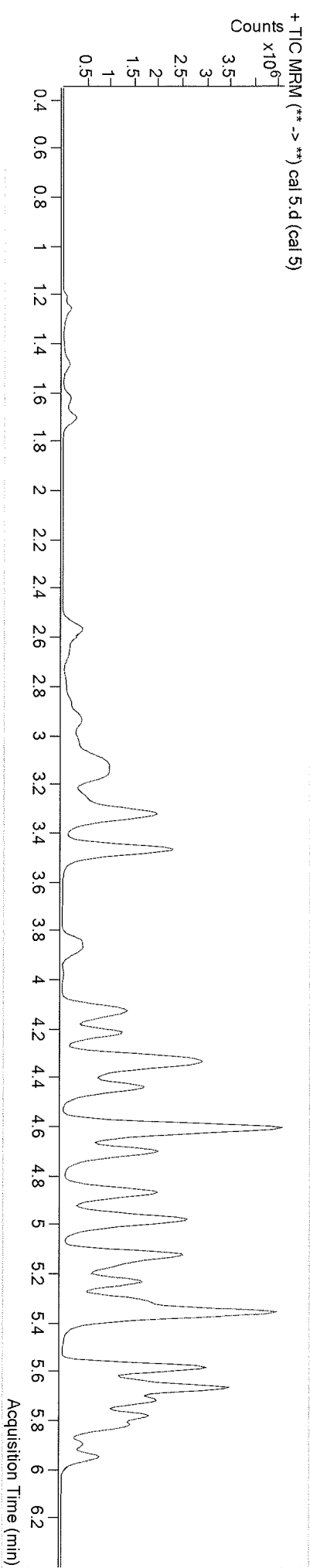
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.318	2289504	58764	3.6	5574	2400307	46.90 ng/ml
Cocaine	4.342	1098213	75271	42.8	42150	2101378	42.40 ng/ml
7-aminoclonazepam	4.356	362911	∞	83.4	9595	285313	45.23 ng/ml
Metoprolol	4.391	268620	8584	95.7	5521	126602	51.18 ng/ml
Lamotrigine	4.407	107544	13831	85.7	10411	3257862	47.95 ng/ml
alpha-PVP	4.442	1336588	25404	53.5	41168	1240648	41.63 ng/ml
Doxylamine	4.609	3482949	191379	97.0	116000	2997519	48.40 ng/ml
Mirtazapine	4.704	2066471	51182	45.4	72719	1240648	42.20 ng/ml
Bupropion	4.874	1740842	54542	59.3	7836	1280054	47.91 ng/ml
Zolpidem	4.979	2525854	140680	30.6	∞	2386225	48.29 ng/ml
Meperbamate	5.010	307585	129082	28.5	5517	272280	47.43 ng/ml
Norbuprenorphine	5.085	3070	∞	102.2	3748	22437	4.92 ng/ml
Venlafaxine	5.124	2091037	11378	39.1	6020	2132455	42.13 ng/ml
Fentanyl	5.168	109144	9874	77.3	4436	1061835	4.57 ng/ml
Trazodone	5.236	1310079	52003	77.9	26416	1135915	46.95 ng/ml
Mitragynine	5.296	166425	573	39.5	∞	126602	41.24 ng/ml
Citalopram	5.305	994659	28811	47.4	∞	883463	44.96 ng/ml
Dextromethorphan	5.336	742785	6513	74.6	5435	749332	44.28 ng/ml
Diphenhydramine	5.364	3264921	12376	34.6	9481	3257862	41.51 ng/ml
Promethazine	5.580	1221764	16505	31.8	3534	1055025	42.14 ng/ml
Quetiapine	5.590	1237503	21112	59.5	∞	367819	47.18 ng/ml
Clonazepam	5.639	249037	8023	32.6	2287	90487	45.97 ng/ml
Cyclobenzaprine	5.649	957466	14226	10.7	∞	759019	43.01 ng/ml
Methadone	5.673	2139459	21825	45.2	13605	2124336	42.78 ng/ml
a-hydroxyalprazolam	5.713	64075	766	57.1	844	75289	45.01 ng/ml
Fluoxetine	5.721	757538	9424	9.3	∞	585510	42.04 ng/ml
Carisoprodol	5.738	561221	7948	58.5	2504	582312	42.73 ng/ml
Lorazepam	5.761	125058	∞	56.3	276	430300	42.01 ng/ml
Oxazepam	5.770	171292	1648	75.4	1267	155652	45.23 ng/ml
Alprazolam	5.783	611533	3992	111.2	1529	430300	43.01 ng/ml
Sertraline	5.783	302844	9362	102.0	1111	280625	44.19 ng/ml
Buprenorphine	5.834	14994	677	17.4	962	126602	4.44 ng/ml
Temazepam	5.831	980952	3871	30.9	1139	911985	42.47 ng/ml
Nordiazepam	5.908	351443	3926	61.8	3080	230329	46.44 ng/ml
Diazepam	5.954	473012	4112	85.1	6393	454128	45.67 ng/ml

# ISPFS AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
 Calibration Last Update 3/26/2019 2:32:23 PM

Instrument 069697 Data File cal 5.d  
 Type Cal Sample Operator Anne Nord  
 Acq. Method mdq p1 cda 121818.m  
 Sample Position P2-E1 Comment  
 Injection Volume 5  
 Acq. Date-Time 3/22/2019 4:20:10 PM  
 Sample Info.

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.287	52196	∞	22.8	32	5525	115.55 ng/ml
Oxymorphone	1.484	328829	926	44.3	853	122355	96.52 ng/ml
Hydromorphone	1.708	472723	12682	72.6	18703	141337	109.58 ng/ml
Dihydrocodeine	2.570	716213	28753	65.4	52803	416302	102.91 ng/ml
Codeine	2.598	249175	107123	103.2	50363	118855	89.75 ng/ml
Oxycodone	2.939	1382651	5594	29.2	2929	615354	96.20 ng/ml
Noroxycodone	3.021	493407	1536	43.7	326	183946	94.53 ng/ml
Hydrocodone	3.116	839338	∞	38.4	2574	493510	94.91 ng/ml
Norhydrocodone	3.178	107469	234	42.0	∞	145771	100.32 ng/ml
Amphetamine	3.167	3463563	44079	53.6	3599	527810	86.73 ng/ml
6-MAM	3.242	41454	∞	75.5	50386	134987	9.57 ng/ml
Methamphetamine	3.328	4108166	1079	39.2	710	1637430	85.16 ng/ml
O-desmethyl-tramadol	3.475	4894560	530142	6.4	35530	2219602	86.66 ng/ml
Phentermine	3.882	972795	6737	4.7	2825	1076579	118.60 ng/ml
Benzylecgonine	3.978	55313	260107	8.0	∞	20023	89.97 ng/ml
Ketamine	4.131	1913646	14564	37.4	3138	952192	98.72 ng/ml
Norfentanyl	4.165	363325	23910	40.2	1634	1292700	9.47 ng/ml
Dextropran	4.223	824113	∞	218.5	∞	994002	85.41 ng/ml

# ISPF5 AM #28 Multi-Drug Quant. Results

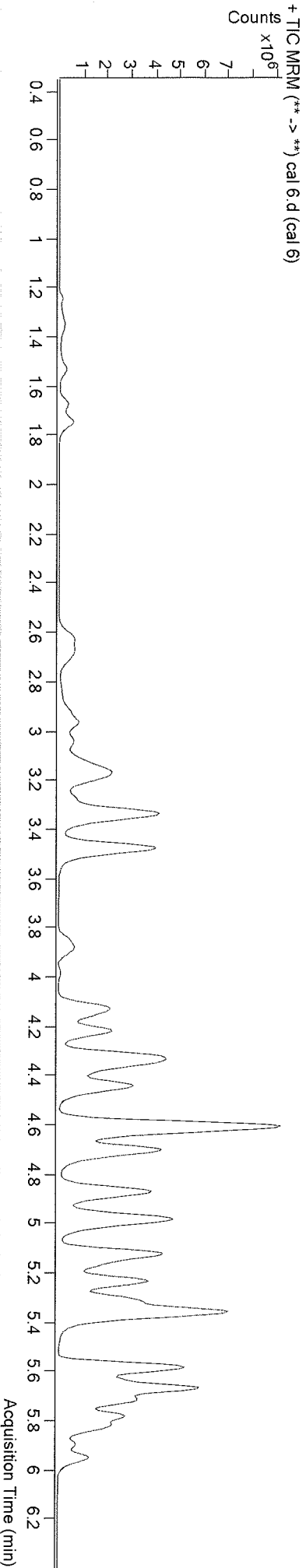
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.324	4165986	∞	3.5	11975	2231037	92.17 ng/ml
Cocaine	4.349	1963138	640288	42.2	1267952	1807743	85.93 ng/ml
7-aminoclonazepam	4.363	563642	142506	84.2	149937	217481	91.72 ng/ml
Metoprolol	4.398	444377	37781	96.6	∞	144876	98.57 ng/ml
Lamotrigine	4.413	179967	∞	86.3	267085	2927930	89.36 ng/ml
alpha-PVP	4.449	2541126	206954	53.4	63285	1126198	84.46 ng/ml
Doxylamine	4.609	6791547	73999	96.8	11803	2887689	97.86 ng/ml
Mirtazapine	4.704	4046344	389979	45.1	10322	1126198	89.93 ng/ml
Bupropion	4.874	3385988	14823	58.5	77329	1235902	97.10 ng/ml
Zolpidem	4.986	4803748	106477	29.8	141053	2251509	97.54 ng/ml
Meperbamate	5.010	510469	62377	29.4	19516	228000	93.72 ng/ml
Norduprenorphine	5.085	5347	6230	97.9	6995	22627	8.99 ng/ml
Venlafaxine	5.124	4022085	∞	38.5	47793	1980304	84.60 ng/ml
Fentanyl	5.168	235861	12887	76.8	438599	1079754	9.66 ng/ml
Trazodone	5.236	2720978	193085	78.8	205209	1191054	93.10 ng/ml
Mirtagryline	5.296	481439	∞	38.6	580627	144876	104.21 ng/ml
Citalopram	5.312	1806653	156161	47.4	1212302	799159	88.94 ng/ml
Dextromethorphan	5.343	1325124	6151	76.5	130971	654812	89.74 ng/ml
Diphenhydramine	5.370	6233740	470358	33.6	6737	2927930	85.28 ng/ml
Promethazine	5.580	3047303	∞	31.3	7215	1246582	86.51 ng/ml
Quetiapine	5.590	2159738	∞	59.4	∞	331729	91.29 ng/ml
Clonazepam	5.639	388087	7990	33.8	2243	72086	104.56 ng/ml
Cyclobenzaprine	5.642	1874921	∞	10.4	2573	710412	88.08 ng/ml
Methadone	5.673	4024584	151497	44.8	9645	1946798	85.71 ng/ml
a-hydroxyalprazolam	5.713	99665	2130	58.7	819	59764	87.80 ng/ml
Fluoxetine	5.721	1928339	1880787	8.9	108359	723160	84.21 ng/ml
Carisoprodol	5.738	884263	∞	57.5	5523	435843	89.11 ng/ml
Lorazepam	5.761	172786	1903	58.8	1284	344844	98.03 ng/ml
Oxazepam	5.764	215793	∞	72.6	∞	99787	89.20 ng/ml
Alprazolam	5.783	1003155	22372	112.1	3082	344844	86.02 ng/ml
Sertraline	5.790	726793	5948	102.2	2997	323839	91.13 ng/ml
Buprenorphine	5.834	36797	1274	16.1	6326	144876	9.50 ng/ml
Temazepam	5.831	1648485	58143	30.4	2656	724813	88.75 ng/ml
Nordiazepam	5.908	586137	∞	62.2	∞	191720	92.94 ng/ml
Diazepam	5.954	858890	4078	85.1	5232	414728	89.74 ng/ml

# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update  
 D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
 3/26/2019 2:32:23 PM

Instrument: 069697  
 Type: Cal  
 Acq. Method: mdq p1 cda 121818.m  
 Sample Position: P2-F1  
 Injection Volume: 5  
 Acq. Date-Time: 3/22/2019 4:30:48 PM  
 Sample Info.  
 Data File: cal 6.d  
 Sample Operator: Anne Nord  
 Comment:

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.354	136652	∞	20.0	∞	8134	205.29 ng/ml
Oxymorphone	1.531	796349	813	43.7	2887	125576	227.53 ng/ml
Hydromorphone	1.748	1134635	∞	63.3	7764	163279	226.82 ng/ml
Dihydrocodeine	2.623	1728411	∞	63.3	2274	423083	247.61 ng/ml
Codeine	2.705	547686	∞	103.4	1693	105863	220.71 ng/ml
Oxycodone	2.966	2973217	27774	29.1	2724	554083	229.57 ng/ml
Noroxycodone	3.048	1159898	∞	42.4	∞	179254	227.65 ng/ml
Hydrocodone	3.129	1774775	∞	39.2	697	390900	254.16 ng/ml
Northdrocodone	3.192	226722	1569	41.9	1032	119581	255.82 ng/ml
Amphetamine	3.180	5756548	109114	52.7	26451	454718	167.96 ng/ml
6-MAM	3.249	100869	136123	74.2	158946	124639	25.16 ng/ml
Methamphetamine	3.341	8336502	2365	38.4	∞	1637665	173.38 ng/ml
O-desmethyl-tramadol	3.482	10637970	317910	6.3	∞	1911477	215.71 ng/ml
Phentermine	3.888	1778643	6031	4.6	1962	987641	246.84 ng/ml
Benzylecgonine	3.985	143866	144981	7.8	1818	21118	221.86 ng/ml
Ketamine	4.131	4043353	442534	37.3	10494	858404	232.46 ng/ml
Norfentanyl	4.172	825293	169060	40.5	4003	1052994	26.15 ng/ml
Dextrophan	4.223	1799477	53815	217.5	∞	867603	210.59 ng/ml

# ISPF5 AM #28 Multi-Drug Quant. Results

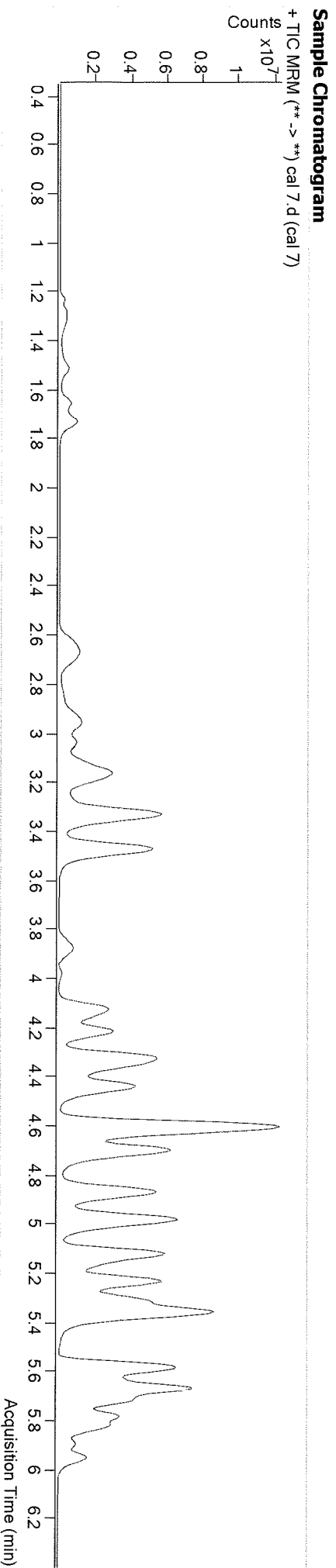
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.324	8323279	68649	3.4	27761	1960187	210.06 ng/ml
Cocaine	4.349	3871669	284435	41.9	85050	1440858	209.64 ng/ml
7-aminoclonazepam	4.363	767470	35225	84.4	∞	116576	232.34 ng/ml
Metoprolol	4.398	750292	15912	96.1	∞	137214	218.89 ng/ml
Lamotrigine	4.413	287386	15950	86.3	54811	2264043	184.64 ng/ml
alpha-PVP	4.449	5543852	∞	52.3	96381	974850	209.09 ng/ml
Doxylamine	4.609	15315081	11326	96.7	353150	2735285	232.82 ng/ml
Mirtazapine	4.704	9031284	691585	44.8	502037	974850	230.39 ng/ml
Bupropion	4.874	7424789	674260	58.7	156048	1135086	232.62 ng/ml
Zolpidem	4.986	10550641	361673	29.6	123249	2140882	225.58 ng/ml
Meprobamate	5.017	909218	73243	28.8	91980	154637	245.65 ng/ml
Norduprenorphine	5.085	12830	38138	100.1	17682	22067	23.14 ng/ml
Venlafaxine	5.131	8723016	14574	38.0	7556	1715409	208.10 ng/ml
Fentanyl	5.175	592739	2974	77.7	340606	1027860	25.42 ng/ml
Trazodone	5.236	6283946	337063	78.8	∞	1227738	208.73 ng/ml
Mitragynine	5.296	1107927	∞	40.9	424170	137214	253.17 ng/ml
Citalopram	5.305	3308150	175851	47.3	402373	593162	217.47 ng/ml
EDDP	5.328	294055	∞	239.2	13253	166975	247.92 ng/ml
Dextromethorphan	5.336	2601462	∞	75.2	6641	512217	224.28 ng/ml
Diphenhydramine	5.370	12209919	499329	33.7	59792	2264043	212.04 ng/ml
Promethazine	5.580	6977479	52136	30.9	∞	1142371	212.84 ng/ml
Quetiapine	5.597	3998829	∞	57.9	3181	268783	208.60 ng/ml
Clonazepam	5.639	524838	10720	32.9	14396	45598	240.96 ng/ml
Cyclobenzaprine	5.642	3534993	23685	10.3	5100	544762	214.04 ng/ml
Methadone	5.673	8729477	307537	44.4	122882	1624637	219.60 ng/ml
a-hydroxyalprazolam	5.713	169986	2187	57.5	339	42196	211.53 ng/ml
Fluoxetine	5.721	3991431	∞	8.9	∞	596064	207.98 ng/ml
Carisoprodol	5.738	1376770	118840	57.9	36859	269547	223.18 ng/ml
Lorazepam	5.761	245573	∞	58.0	∞	252103	223.97 ng/ml
Oxazepam	5.764	258030	1091	73.6	∞	48497	219.94 ng/ml
Alprazolam	5.789	1818172	2124	111.3	∞	252103	210.41 ng/ml
Sertraline	5.790	1345667	73655	101.2	85527	239494	227.07 ng/ml
Buprenorphine	5.834	94660	19723	16.2	∞	137214	25.80 ng/ml
Temazepam	5.831	3016012	87861	30.6	6202	524162	223.08 ng/ml
Nordiazepam	5.908	1032144	34480	61.7	35824	143049	219.22 ng/ml
Diazepam	5.954	1649121	7634	85.9	5143	327539	216.63 ng/ml



# ISPFS AM #28 Multi-Drug Quant. Results

Batch results Calibration Last Update D:\MassHunter\Data\am 28\_032219\QuantResults\mdq p1.batchn.bin  
 3/26/2019 2:32:23 PM

Instrument 069697 Data File cal 7.d  
 Type Cal Sample Operator Anne Nord  
 Acq. Method mdq p1 cda 121818.m  
 Sample Position P2-G1  
 Injection Volume 5  
 Acq. Date-Time 3/22/2019 4:52:02 PM  
 Sample Info.



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.334	252107	∞	23.0	∞	5963	516.34 ng/ml
Oxymorphone	1.511	1488532	8049	43.9	1101	98688	540.94 ng/ml
Hydromorphone	1.735	1824457	∞	70.5	27171	119792	496.19 ng/ml
Dihydrocodeine	2.664	2774610	99249	63.6	∞	309122	546.85 ng/ml
Codeine	2.705	844357	1626	101.5	7857	66105	544.16 ng/ml
Oxycodone	2.959	5396742	4964	29.1	4758	440128	524.43 ng/ml
Noroxycodone	3.041	1963061	8046	41.4	4593	130883	527.33 ng/ml
Hydrocodone	3.122	2925306	∞	40.2	1496	306983	533.97 ng/ml
Northdrocodone	3.185	392266	∞	41.7	∞	75548	698.16 ng/ml
Amphetamine	3.174	7435071	1150	53.5	32406	308418	320.48 ng/ml
6-MAM	3.249	186400	13346	75.1	∞	88532	65.42 ng/ml
Methamphetamine	3.334	12477053	∞	38.1	26002	1234811	344.72 ng/ml
O-desmethyl-tramadol	3.475	16815103	∞	6.3	53975	1223663	529.73 ng/ml
Phentermine	3.882	2653459	∞	4.6	2927	716125	519.02 ng/ml
Benzoylcegonine	3.985	294953	∞	8.0	2513	17485	549.35 ng/ml
Ketamine	4.131	6418455	260593	5161.75	44223	587061	540.61 ng/ml
Norfentanyl	4.172	1393564	9469	40.3	19719	637177	72.71 ng/ml
Dextroprphan	4.217	2894863	∞	218.1	∞	555501	526.02 ng/ml

# ISPFS AM #28 Multi-Drug Quant. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.318	12355710	∞	3.5	19865	122730	480.72 ng/ml
Cocaine	4.349	5575717	753423	41.7	256971	820046	527.38 ng/ml
7-aminoclonazepam	4.363	796240	∞	84.1	39487	47892	586.11 ng/ml
Metoprolol	4.398	995583	964661	96.7	∞	85665	527.32 ng/ml
Lamotrigine	4.413	326882	62137	85.9	61075	1264024	376.26 ng/ml
alpha-PVP	4.449	8844876	210379	52.7	64932	617610	522.76 ng/ml
Doxylamine	4.613	23338771	481671	97.3	1055617	1956916	495.79 ng/ml
Mirtazapine	4.704	14325470	487815	45.0	242779	617610	575.39 ng/ml
Bupropion	4.874	11952322	4687988	58.4	139078	781111	544.93 ng/ml
Zolpidem	4.986	16401449	∞	29.9	∞	1509632	497.56 ng/ml
Meproramate	5.017	1238150	69887	28.9	24924	79320	651.69 ng/ml
Norbuprenorphine	5.078	21513	20485	103.5	31413	16903	51.47 ng/ml
Venlafaxine	5.124	14176626	994383	37.3	9252	1085442	530.60 ng/ml
Fentanyl	5.168	1116563	∞	77.4	∞	712393	68.99 ng/ml
Trazodone	5.236	10490815	2072	78.5	1459	927438	461.42 ng/ml
Mitragynine	5.296	1851823	∞	40.4	15310	85665	677.75 ng/ml
Citalopram	5.305	3955971	189406	47.4	192862	296886	517.73 ng/ml
EDDP	5.322	1388570	45925	238.8	∞	294102	512.45 ng/ml
Dextromethorphan	5.336	3376258	400874	75.5	105921	268156	555.06 ng/ml
Diphenhydramine	5.372	16961572	500881	34.5	124768	1264024	523.73 ng/ml
Promethazine	5.587	10621318	∞	31.0	∞	695630	528.74 ng/ml
Quetiapine	5.597	5427388	241325	58.1	∞	173352	438.96 ng/ml
Clonazepam	5.632	545997	10665	33.2	1529	21934	538.91 ng/ml
Cyclobenzaprine	5.642	4942403	25114	10.2	2167	306291	529.67 ng/ml
Methadone	5.673	13102909	∞	45.3	∞	1000892	532.18 ng/ml
a-hydroxyalprazolam	5.713	246781	503	58.0	901	24226	534.27 ng/ml
Fluoxetine	5.721	5550282	651759	8.7	∞	333279	513.81 ng/ml
Carisoprodol	5.738	1690681	4924	57.1	14317	129149	570.81 ng/ml
Lorazepam	5.761	321974	∞	58.5	207	147433	546.03 ng/ml
Oxazepam	5.764	323518	2843	73.3	∞	24152	554.21 ng/ml
Alprazolam	5.789	2664119	3391	111.3	∞	147433	524.29 ng/ml
Sertraline	5.790	1728450	171328	101.0	∞	125510	555.50 ng/ml
Buprenorphine	5.834	154522	∞	16.3	19644	85665	67.43 ng/ml
Temazepam	5.831	4340447	195005	30.1	19140	295318	568.34 ng/ml
Nordiazepam	5.901	1446273	46364	61.6	30804	81906	536.34 ng/ml
Diazepam	5.954	2400005	23437	85.9	4505	195464	526.74 ng/ml

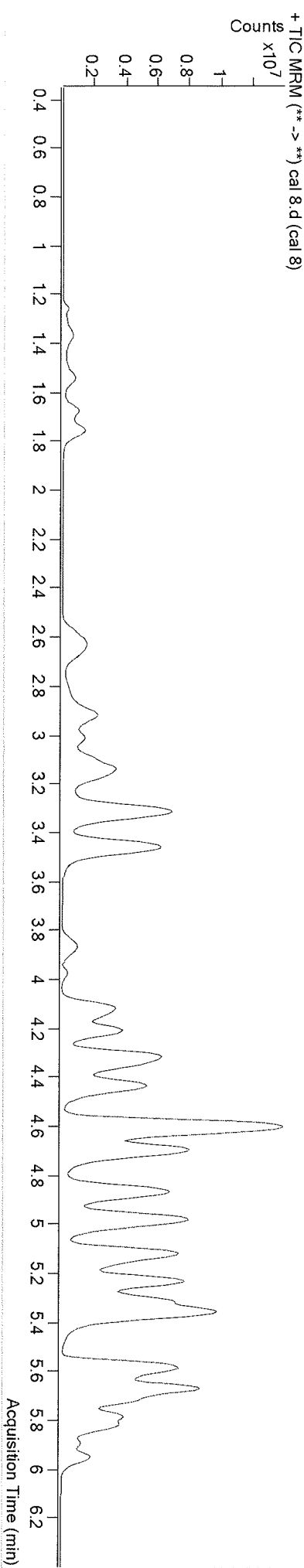
# ISPFS AM #28 Multi-Drug Quant. Results

Batch results  
 Calibration Last Update  
 D:\MassHunter\Data\am 28 032219\QuantResults\mdq p1.batch.bin  
 3/26/2019 2:32:23 PM

Instrument: 069697  
 Type: Cal  
 Acq. Method: mdq p1 cda 121818.m  
 Sample Position: P2-H1  
 Injection Volume: 5  
 Acq. Date-Time: 3/22/2019 5:13:14 PM  
 Sample Info.

Data File: cal 8.d  
 Sample Operator: Anne Nord  
 Comment:

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Morphine	1.380	357055	∞	23.8	60055	4476	973.95 ng/ml
Oxymorphone	1.538	2417481	2634	43.7	∞	88042	984.62 ng/ml
Hydromorphone	1.762	2741418	∞	76.5	∞	87452	1020.46 ng/ml
Dihydrocodeine	2.623	4078452	2288	64.4	39467	263479	944.78 ng/ml
Codeine	2.672	1206268	71275	102.8	3587	46779	1098.05 ng/ml
Oxycodone	2.919	9716276	6591	28.7	1126	415540	999.93 ng/ml
Noroxycodone	3.102	2968715	∞	41.0	∞	104380	999.70 ng/ml
Hydrocodone	3.165	4767957	6869	39.8	2509	276437	966.88 ng/ml
Amphetamine	3.161	647836	∞	41.7	∞	54633	1592.67 ng/ml
6-MAM	3.228	8930256	183498	53.2	∞	212531	559.11 ng/ml
Methamphetamine	3.320	311471	27123	74.4	∞	71655	135.02 ng/ml
O-desmethyl-tramadol	3.320	16883735	6949	38.0	∞	1088947	529.27 ng/ml
Phentermine	3.465	23617760	710931	6.4	161032	889941	1021.22 ng/ml
Benzylecgonine	3.875	3691343	∞	4.6	6185	589475	884.44 ng/ml
Ketamine	3.978	612715	1064775	8.0	4272	17309	1152.76 ng/ml
Norfentanyl	4.124	9013870	308186	36.5	40943	457469	974.92 ng/ml
Dextroprphan	4.165	2027385	∞	40.2	11264	422757	159.27 ng/ml
cal 8	4.215	4096605	151043	219.9	∞	400130	1031.45 ng/ml

# ISPF5 AM #28 Multi-Drug Quant. Results

Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Tramadol	4.311	15908432	∞	3.5	∞	936353	841.57 ng/ml
Cocaine	4.342	6996817	252421	41.8	699576	525560	1030.68 ng/ml
7-aminoclonazepam	4.363	709647	47035	84.7	33268	19722	1268.01 ng/ml
Metoprolol	4.391	1218113	256762	96.4	∞	54719	1060.56 ng/ml
Lamotrigine	4.407	303292	15548	88.2	180884	778167	567.12 ng/ml
alpha-PVP	4.445	12512368	312098	52.5	47377	438721	1038.59 ng/ml
Doxylamine	4.612	30845348	6883173	97.5	603816	1599105	801.80 ng/ml
Mirtazapine	4.707	20253058	369688	46.0	578989	438721	1144.23 ng/ml
Bupropion	4.876	16664634	779072	59.4	863618	610046	973.27 ng/ml
Zolpidem	4.986	22499018	63951	30.9	∞	1297795	794.08 ng/ml
Meprobamate	5.017	1446903	1533233	29.3	303730	41183	1466.46 ng/ml
Norbuprenorphine	5.078	34607	132436	101.1	125010	13932	101.12 ng/ml
Venlafaxine	5.126	19794547	484374	38.7	137236	778239	1030.98 ng/ml
Fentanyl	5.168	1925378	1225707	79.4	2554608	572958	147.85 ng/ml
Trazodone	5.236	15071917	176095	80.3	707	825333	744.99 ng/ml
Mitragynine	5.290	2527554	41002	41.4	∞	54719	1448.18 ng/ml
Citalopram	5.298	3790161	301942	46.6	49699	143207	1027.03 ng/ml
EDDP	5.322	3565092	17613	244.2	16174	356801	983.40 ng/ml
Dextronethorphan	5.336	3494680	2410	74.9	80334	137990	1115.85 ng/ml
Diphenhydramine	5.374	20665991	290996	35.0	84168	778167	1033.99 ng/ml
Promethazine	5.573	13669413	571588	30.8	205946	460326	1026.22 ng/ml
Quetiapine	5.604	6536944	∞	57.4	∞	121319	755.45 ng/ml
Clonazepam	5.632	444589	1947	33.5	15066	10110	963.76 ng/ml
Cyclobenzaprine	5.642	5670128	98718	10.2	30893	181927	1021.44 ng/ml
Methadone	5.673	17140189	∞	47.2	9571	684391	1016.27 ng/ml
a-hydroxyalprazolam	5.713	343062	1655	58.6	481	15574	1154.86 ng/ml
Fluoxetine	5.721	6519465	269844	8.6	469372	191500	1047.95 ng/ml
Carisoprodol	5.738	1747995	165341	57.1	18635	66402	1147.06 ng/ml
Lorazepam	5.761	421410	157	56.7	∞	98510	1103.50 ng/ml
Oxazepam	5.764	409478	2007	73.9	∞	15842	1069.73 ng/ml
Alprazolam	5.789	3510539	120	110.7	1453	98510	1032.10 ng/ml
Sertraline	5.797	1871844	121561	100.8	80797	68382	1103.46 ng/ml
Buprenorphine	5.841	221480	∞	16.2	40578	54719	151.30 ng/ml
Temazepam	5.831	5692079	136752	29.9	11064	186813	1177.20 ng/ml
Nordiazepam	5.901	1805579	∞	60.9	83698	52022	1054.14 ng/ml
Diazepam	5.954	3001172	2969	85.2	1700	126461	1017.08 ng/ml