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Worklist: 1965

AM 7 Central File for ELISA available upon request.

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<u>LAB CASE</u>	<u>ITEM</u>	<u>TASK ID</u>	<u>DESCRIPTION</u>	
M2017-3451	1	98287	AM 25 Blood Multi-Drug Screer	
M2017-3466	1	98288	AM 25 Blood Multi-Drug Screer	
M2017-3488	1	98289	AM 25 Blood Multi-Drug Screer	
M2017-3610	1	98290	AM 25 Blood Multi-Drug Screer	
M2017-3610	2	98291	AM 25 Blood Multi-Drug Screer	
M2017-3611	1	98292	AM 25 Blood Multi-Drug Screer	
M2017-3612	1	98293	AM 25 Blood Multi-Drug Screer	
M2017-3632	1	98294	AM 25 Blood Multi-Drug Screer	
M2017-3632	2	98295	AM 25 Blood Multi-Drug Screer	
M2017-3728	1	98296	AM 25 Blood Multi-Drug Screer	
M2017-3729	1	98297	AM 25 Blood Multi-Drug Screer	
M2017-3903	1	98298	AM 25 Blood Multi-Drug Screer	
P2017-1192	1	98299	AM 25 Blood Multi-Drug Screer	
P2017-1787	2	98300	AM 25 Blood Multi-Drug Screer	
P2017-1829	3	98301	AM 25 Blood Multi-Drug Screer	
P2017-1829	4	98302	AM 25 Blood Multi-Drug Screer	
P2017-1917	1	98303	AM 25 Blood Multi-Drug Screer	
P2017-1918	1	98304	AM 25 Blood Multi-Drug Screer	
P2017-1929	1	98305	AM 25 Blood Multi-Drug Screer	
P2017-1950	1	98306	AM 25 Blood Multi-Drug Screer	
P2017-1955	1	98307	AM 25 Blood Multi-Drug Screer	
P2017-1986	1	98308	AM 25 Blood Multi-Drug Screer	
P2017-2015	1	98309	AM 25 Blood Multi-Drug Screer	

**Worklist: 1965**

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<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>
P2017-2023	1	98310	AM 25 Blood Multi-Drug Screer
P2017-2028	5	98311	AM 25 Blood Multi-Drug Screer



# Multi-Drug Screen in Blood by LC-MS/MS

SP

Extraction Date: 10/25/17

Analyst: Sarah Pickle

Plate lot#: 0515207

Plate Expiration: 10/18/18

Mobile phase A: 10mM Ammonium Formate  
0.5M Ammonium Hydroxide

Mobile phase B 0.1% Formic acid in MeOH  
Ethyl Acetate

Blank Blood Lot: 361331-3

Column: Phenomenex Phenyl Hexyl (4.6x50mm: 2.6 um)

LCMS-QQQ ID: 59740

## 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: C:\MassHunter\Data\2017\MDScreen\102517 SP MD Screen

## Analytic:

1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
2. Pipette **250µL blood (calibrated pipette) Pipette ID: #3** in wells of analytical (standards) plate.
3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
4. Pipette **250µL 0.5M ammonium hydroxide** buffer 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. 4 seconds (or until no liquid remains on top of sorbent).  
*(Load at 85-100 PSI- Selector to the right) Manifold ID: 067104*  
Wait 5 minutes
8. Add **900µL ethyl acetate** and allow to flow for 5 minutes under gravity.
9. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left)*
10. Add **900µL ethyl acetate** and allow to flow for 5 minutes under gravity.
11. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left)*
12. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.  
*SPE Dry ID 067103*
13. Reconstitute in **100µL 100% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

## POST-ANALYTIC

1. Create batch and process data.  
Worklist path: 102517 SP MD Screen Batch Name: 102517 MD Screen P2 SP batch.bin *spelling verified*
2. Evaluate samples, S/N of primary transition >5 and S/N of secondary transition >3 or evaluation of peak symmetry and resolution. Within +/- 2% or 0.1 min RT of administrative control. > 1/5 the response of administrative control.
3. Did all QCs pass for each analyte? Y  N DNE Carisoprodol *Did not evaluate*
4. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:

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Multidrug Screen External Control Preparation Information

Lot 053117

Drug	Lot	Expiration date
Temazepam	Cerilliant FE08191401	October 2019
Quetiapine	Cerilliant FN02021502	February 2020
Zolpidem	Cerilliant FE12181402	February 2020
Zopiclone	Cerilliant FE12031501	December 2020

Ext. control

100ul of 1mg/mL stock was added for each drug to 9960ul of LC MeOH (BDH Lot 15H250514). 100ul of the working solution was added to 9900ul of blood (Hemostat Lot 361331-3).

L → W5092517      Created: 09/25/17      By: TS  
Expires: 03/25/18



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Compound Method		p1 cal 1a			p1 cal 1a Results			Qualifier 1 M...		ISTD Method			ISTD Results	
Name	Transition	Acq. Date-Time	Pos.	RT	Resp.	S/N	Transition	Transition	S/N	Name	Transition	RT	Resp.	
Tramadol	264.2 -> 58.3	10/25/2017 1:25 PM	P2-A1	5.072	201718	555.87	264.2 -> 43.3	268.2 -> 58.3	73.95	Tramadol-13C-D3		5.072	1061398	
Trazodone	372.2 -> 176...	10/25/2017 1:25 PM	P2-A1	5.955	195987	38282.01	372.2 -> 148...	392.2 -> 238...	441.18	Sufentanil-D5		5.852	16226	
Venlafaxine	278.2 -> 58.3	10/25/2017 1:25 PM	P2-A1	5.397	207573	Infinity	278.2 -> 260...	284.2 -> 64.3	Infinity	Venlafaxine-D6		5.396	81876	
Zolpidem	308.2 -> 235...	10/25/2017 1:25 PM	P2-A1	5.718	169257	Infinity	308.2 -> 263...	314.2 -> 235...	431.98	Zolpidem-D6		5.696	730301	

Did not evaluate carisoprodol.



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Compound Method		p1 negative			p1 negative Results			Qualifier 1 M.L.		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	Pos.	RT	Resp.	S/N	Transition	S/N	Transition	Name	Transition	RT	Resp.
Tramadol	264.2 -> 58.3	10/25/2017 1:44 PM	P2-C1	5.113	5194	18.28	264.2 -> 43.3		268.2 -> 58.3	Tramadol-13C-D3	268.2 -> 58.3	5.113	960943
Trazodone	372.2 -> 176...	10/25/2017 1:44 PM	P2-C1	5.995	1735	1.90	372.2 -> 148...	1.77	392.2 -> 238...	Sufentanil-D5	392.2 -> 238...	5.893	21852
Venlafaxine	278.2 -> 58.3	10/25/2017 1:44 PM	P2-C1	5.438	196	8.44	278.2 -> 260...		284.2 -> 64.3	Venlafaxine-D6	284.2 -> 64.3	5.437	100051
Zolpidem	308.2 -> 235...	10/25/2017 1:44 PM	P2-C1	5.840	158	1.21	308.2 -> 263...		314.2 -> 235...	Zolpidem-D6	314.2 -> 235...	5.737	786455





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Compound Method		p1 external control			p1 external control Results			Qualifier 1 M...		Qualifier...			ISTD Method			ISTD Results	
Name	Transition	Acq. Date-Time	Res	RT	Resp.	S/N	Transition	S/N	Name	Transition	RT	Resp.	Transition	RT	Resp.		
Tramadol	264.2 -> 58.3	10/25/2017 2:03 PM	P2-...	5.113	4419	1173.26	264.2 -> 43.3		Tramadol-13C-D3	268.2 -> 58.3	5.113	10831...		5.113	10831...		
Trazodone	372.2 -> 176...	10/25/2017 2:03 PM	P2-...	5.995	1073	12.97	372.2 -> 148...	129.95	Sufentanil-D5	392.2 -> 238...	5.893	21314		5.893	21314		
Venlafaxine	278.2 -> 58.3	10/25/2017 2:03 PM	P2-...	5.315	143	Infinity	278.2 -> 260...		Venlafaxine-D6	284.2 -> 64.3	5.457	85244		5.457	85244		
Zolpidem	308.2 -> 235...	10/25/2017 2:03 PM	P2-...	5.759	18429...	369164...	308.2 -> 263...	889.59	Zolpidem-D6	314.2 -> 235...	5.737	808310		5.737	808310		





Compound Method		p2 external control				p2 external control Results				Qualifier 1 M...				ISTD Method				ISTD Results	
Name	Transition	Acq. Date-Time	Pos.	RT	Resp.	S/N	Transition	S/N	Transition	S/N	Name	Transition	RT	Resp.					
7-aminofluorazepam	284.1 -> 135...	10/25/2017 2:13 PM	P2...	5.466	425	179.70	284.1 -> 93.2	1.41	7-aminofluorazepam-D7	291.2 -> 138...	5.403	478682							
alpha-hydroxymidazolam	342.1 -> 324...	10/25/2017 2:13 PM	P2...	6.170	149	0.27	342.1 -> 203...	0.45	alpha-hydroxymidazolam-	346.1 -> 328...	6.048	107301							
Amitriptyline	278.2 -> 91.2	10/25/2017 2:13 PM	P2...	6.080	670	0.93	278.2 -> 105...	9.50	Amitriptyline-D3	281.2 -> 91.2	5.956	410272							
Amoxapine	314.1 -> 271...	10/25/2017 2:13 PM	P2...	6.051	118	7.00	314.1 -> 193...	0.90	Amitriptyline-D3	281.2 -> 91.2	5.956	410272							
Benzylecgonine	290.1 -> 168...	10/25/2017 2:13 PM	P2...	5.058	53	0.79	290.1 -> 105...	1.51	Benzylecgonine-D8	298.2 -> 171...	5.037	2787							
Carbamazepine	237.1 -> 193...	10/25/2017 2:13 PM	P2...	5.942	638	2.07	237.1 -> 194...	Infinity	Carbamazepine-13C6	243.1 -> 200...	5.758	806520							
Chlordiazepoxide	300.1 -> 227...	10/25/2017 2:13 PM	P2...	5.993	1468	3.70	300.1 -> 282...	0.80	Chlordiazepoxide-D5	305.1 -> 286...	6.176	271070							
Clomipramine	315.2 -> 86.2	10/25/2017 2:13 PM	P2...	6.194	132	0.43	315.2 -> 58.3	2.13	Clomipramine-D3	318.2 -> 89.2	6.132	302233							
Cocaine	304.2 -> 182...	10/25/2017 2:13 PM	P2...	5.401	894	0.74	304.2 -> 105...	9.35	Cocaine-D3	307.2 -> 185...	5.259	170276							
Desipramine	267.2 -> 72.3	10/25/2017 2:13 PM	P2...	5.937	966	3.35	267.2 -> 44.3		Desipramine-D3	270.2 -> 75.3	5.917	69628							
Doxepin	280.2 -> 107...	10/25/2017 2:13 PM	P2...	6.442	46	1.48	280.2 -> 77.2		Doxepin-D3	283.2 -> 107...	5.732	4013							
Estazolam	295.1 -> 267...	10/25/2017 2:13 PM	P2...	6.072	2283	14.54	295.1 -> 205...	0.25	Estazolam-D5	300.1 -> 272...	5.993	344697							
Flunitrazepam	314.1 -> 268...	10/25/2017 2:13 PM	P2...	5.864	113	0.48	314.1 -> 239...	1.06	Flunitrazepam-D7	321.1 -> 245...	6.030	23521							
Flurazepam	388.2 -> 315...	10/25/2017 2:13 PM	P2...	6.017	548	3.14	388.2 -> 317...	0.37	Zopiclone-D4	393.1 -> 244...	5.640	13754							
Imipramine	281.2 -> 86.2	10/25/2017 2:13 PM	P2...	4.583	54	1.91	281.2 -> 58.3		Imipramine-D3	284.2 -> 61.3	5.934	412795							
Levamisole	205.1 -> 91.2	10/25/2017 2:13 PM	P2...	5.692	507	0.65	205.1 -> 178...	0.37	Cocaine-D3	307.2 -> 185...	5.259	170276							
Maprotiline	278.2 -> 91.2	10/25/2017 2:13 PM	P2...	5.031	1587	2.34	278.2 -> 117...	0.37	Meperidine-D4	252.2 -> 224...	5.267	38730							
MDA	180.1 -> 163...	10/25/2017 2:13 PM	P2...	4.825	125	0.37	180.1 -> 105...	0.62	MDA-D5	185.1 -> 168...	4.686	92598							
MDEA	208.1 -> 163...	10/25/2017 2:13 PM	P2...	4.827	304	74.79	208.1 -> 105...	0.73	MDEA-D6	214.2 -> 166...	4.946	217400							
MDMA	194.1 -> 163...	10/25/2017 2:13 PM	P2...	5.656	2081	56.46	194.1 -> 105...	0.35	MDMA-D6	200.2 -> 166...	4.806	10826							
Meperidine	248.2 -> 220...	10/25/2017 2:13 PM	P2...	5.107	249	0.73	248.2 -> 174...	6.97	Meperidine-D4	252.2 -> 224...	5.267	38730							
Methylphenidate	234.2 -> 84.2	10/25/2017 2:13 PM	P2...	4.838	32	0.38	234.2 -> 56.3		Meperidine-D4	252.2 -> 224...	5.267	38730							
Metoprolol	268.2 -> 116...	10/25/2017 2:13 PM	P2...	6.537	112	4.42	268.2 -> 56.3	0.84	Meperidine-D4	252.2 -> 224...	6.171	326930							
Midazolam	326.1 -> 223...	10/25/2017 2:13 PM	P2...	5.592	27	0.41	326.1 -> 249...		Midazolam-D4	330.1 -> 295...	6.171	326930							
Mirtazapine	266.2 -> 195...	10/25/2017 2:13 PM	P2...	6.068	193	85.85	266.2 -> 72.3		Midazolam-D4	330.1 -> 295...	5.342	506135							
Mitragynine	399.2 -> 174...	10/25/2017 2:13 PM	P2...	5.352	187	0.49	399.2 -> 238...		Carbamazepine-13C6	243.1 -> 200...	5.758	806520							
Normeperidine	234.1 -> 42.3	10/25/2017 2:13 PM	P2...	5.805	54	0.41	234.1 -> 160...		Normeperidine-D4	238.2 -> 164...	5.269	214194							
Norpropoxyphene	326.2 -> 44.3	10/25/2017 2:13 PM	P2...	6.000	393	0.49	326.2 -> 252...		Norpropoxyphene-D5	331.2 -> 44.3	5.805	78163							
Nortriptyline	264.2 -> 91.2	10/25/2017 2:13 PM	P2...			0.49	264.2 -> 233...		Nortriptyline-D3	267.2 -> 233...	5.937	190184							
Ondansetron	294.2 -> 184...	10/25/2017 2:13 PM	P2...				294.2 -> 212...		Pentazocine-13C3	289.2 -> 72.3	5.342	506135							
Pentazocine	286.2 -> 218...	10/25/2017 2:13 PM	P2...				286.2 -> 41.3		Pentazocine-13C3	289.2 -> 72.3	5.342	506135							
Phenazepam	349.0 -> 206...	10/25/2017 2:13 PM	P2...	7.025	81	1.18	349.0 -> 183...		Phenazepam-D4	353.0 -> 183...	6.087	4706							
Phencyclidine	244.2 -> 86.2	10/25/2017 2:13 PM	P2...				244.2 -> 91.1		Phencyclidine-D5	249.2 -> 86.2	5.533	231159							
Phenytol	253.1 -> 104...	10/25/2017 2:13 PM	P2...				253.1 -> 182...		Phenytol-D10	263.2 -> 192...	5.675	3832							
Praxepam	325.1 -> 271...	10/25/2017 2:13 PM	P2...				325.1 -> 140...	0.35	Praxepam-D5	330.1 -> 276...	6.536	11153...							
Primidone	219.1 -> 91.2	10/25/2017 2:13 PM	P2...				219.1 -> 162...		Praxepam-D5	330.1 -> 276...	6.536	11153...							
Propoxyphene	340.2 -> 58.3	10/25/2017 2:13 PM	P2...				340.2 -> 266...		Propoxyphene-D11	351.3 -> 277...	5.824	2421							
Protriptyline	264.2 -> 155...	10/25/2017 2:13 PM	P2...				264.2 -> 161...		Propoxyphene-D3	267.2 -> 233...	5.937	190184							
Pseudoephedrine	166.1 -> 148...	10/25/2017 2:13 PM	P2...				166.1 -> 133...		Pseudoephedrine-D3	169.1 -> 151...	4.363	696674							
Tapentadol	222.2 -> 107...	10/25/2017 2:13 PM	P2...				222.2 -> 121...	0.98	Tapentadol-D3	225.2 -> 107...	5.128	263613							
Trimipramine	295.2 -> 100...	10/25/2017 2:13 PM	P2...				295.2 -> 58.3	0.77	Trimipramine-D3	298.2 -> 103...	5.993	12804...							
Verapamil	455.3 -> 165...	10/25/2017 2:13 PM	P2...				455.3 -> 150...		Trimipramine-D3	298.2 -> 103...	5.993	12804...							
Zaleplon	306.1 -> 236...	10/25/2017 2:13 PM	P2...				306.1 -> 264...		Zaleplon-D4	310.2 -> 240...	5.848	34116							
Zopiclone	389.1 -> 244...	10/25/2017 2:13 PM	P2...	5.640	54548	809.69	389.1 -> 216...	7122...	Zopiclone-D4	393.1 -> 244...	5.640	13754							