

Supplementary Table 1. Information for the drug and drug metabolites analyzed in blood by paper spray MS/MS. Signal to blank was determined by spiking the targets into drug free human blood at the cutoff concentration indicated. The AUC obtained from this analysis was divided by the AUC obtained from the same blood sample without spiking. The “true” SRM Ratio was obtained by direct infusion of a neat drug standard.

Target	Cutoff concentration (ng/mL)	precursor m/z	Product m/z	Signal to Blank (S:B)	True SRM Ion Ratio
6-acetylmorphine	30	328	211	2	57
			165	2	
7-aminoclonazepam	50	286	121	19	36
			94	9	
7-aminoflunitrazepam	20	284	227	13	51
			135	11	
9-hydroxyrisperidone	10	427	207	3	22
			110	3	
Acetaminophen	10000	152	110	29	30
			65	25	
Alfentanil	50	417	268	27	62
			197	13	
Alpha-PVP	50	232	91	54	41
			77	24	
Alprazolam	5	309	281	3	87
			205	3	
Amitriptyline	20	278	233	21	61
			117	14	
Amlodipine	20	409	294	2	67
			238	2	
Amphetamine	200	136	119	22	25
			91	9	
Aripiprazole	100	448	285	74	28
			176	35	
Atenolol	100	267	190	12	78
			145	6	
Baclofen	1000	214	151	94	88
			115	78	
Benzoylcegonine	50	290	168	11	33
			77	4	
Benztropine	10	308	167	13	45
			165	13	
Benzylpiperazine	25	177	91	16	12
			85	3	
Brompheniramine	25	319	274	21	47

			167	9	
Bupivacaine	500	289	140	335	17
			98	284	
Bupropion	50	240	184	47	55
			131	49	
Buspirone	25	386	122	36	18
			95	5	
Carbamazepine	1000	237	194	181	30
			192	186	
Carbamazepine-10,11-epoxide	1000	253	210	91	36
			180	246	
Carisoprodol	2000	261	97	4	83
			55	4	
Chlordiazepoxide	50	300	255	18	22
			227	26	
Chlorpheniramine	25	275	230	43	53
			167	28	
Chlorpromazine	50	319	214	19	26
			58	22	
Citalopram	10	325	262	16	47
			234	6	
Clomipramine	20	315	242	5	73
			227	4	
Clonazepam	25	316	270	5	32
			214	10	
Clozapine	50	327	270	77	64
			192	64	
Cocaethylene	50	318	196	62	27
			82	42	
Cocaine	50	304	182	46	21
			82	14	
Codeine	20	300	215	10	61
			199	4	
Cyclobenzaprine	10	276	231	5	39
			215	5	
Demoxepam	75	287	207	3	65
			180	6	
Desalkylflurazepam	50	289	226	44	66
			140	6	
Desipramine	20	267	193	6	20
			72	17	

Desmethylclomipramine	100	301	227	11	17
			72	108	
Dextromethorphan	10	272	215	5	76
			147	5	
Diazepam	50	285	222	22	81
			154	18	
Diltiazem	50	415	178	76	44
			150	56	
Diphenhydramine	25	256	167	12	43
			165	16	
Donepezil	50	380	243	62	16
			91	75	
Doxepine	20	280	165	15	52
			107	12	
Doxylamine	25	271	182	18	88
			167	16	
Duloxetine	20	298	154	2	87
			44	2	
EDDP	25	278	249	13	42
			234	12	
Ephedrine/Pseudoephedrine	50	166	117	27	86
			115	26	
Etomidate	100	245	141	20	66
			95	5	
Felbamate	10000	239	178	37	64
			117	14	
Fentanyl	10	337	188	5	70
			105	4	
Flecainide	500	415	301	310	38
			98	335	
Flunitrazepam	20	314	268	3	38
			239	7	
Fluoxetine	20	310	148	6	13
			44	15	
Flurazepam	25	388	317	12	22
			315	17	
Fluvoxamine	25	319	200	4	21
			71	10	
Gabapentin	500	172	137	116	32
			119	103	
Haloperidol	10	376	165	4	93

			123	4	
Hydrocodone	20	300	199	19	37
			171	10	
Hydromorphone	20	286	185	6	69
			157	4	
Hydroxyzine	75	375	201	28	86
			165	56	
Ketamine	100	238	125	141	24
			89	91	
Labetalol	50	329	162	41	87
			91	81	
Lamotrigine	1000	256	211	84	63
			145	77	
Levetiracetam	2000	171	154	20	24
			126	23	
Lidocaine	500	235	86	410	12
			58	311	
Lorazepam	25	321	276	22	48
			167	11	
mCPP	20	197	154	6	89
			118	13	
MDA	100	180	135	25	91
			133	17	
MDMA	50	194	163	114	35
			105	40	
MDPV	50	276	175	92	89
			135	84	
Meperidine	25	248	220	16	58
			174	12	
Mephedrone	50	178	145	78	76
			144	112	
Meprobamate	2000	219	158	208	81
			97	25	
Mescaline	100	212	180	6	81
			165	48	
Metaxalone	1000	222	161	118	26
			105	24	
Methadone	25	310	265	36	32
			105	23	
Methamphetamine	50	150	119	98	39
			91	51	

Methocarbamol	1000	242	199	65	23
			118	108	
Methylone	50	208	160	58	52
			132	36	
Methylphenidate	20	234	84	12	13
			56	6	
Metoclopramide	100	300	227	110	39
			184	89	
Metoprolol	50	268	116	70	68
			77	11	
Midazolam	50	326	291	45	27
			249	44	
Mirtazapine	50	266	195	109	41
			194	101	
Morphine	25	286	165	3	71
			152	4	
Naproxen	3000	231	185	7	30
			170	21	
Norclozapine	50	313	270	59	73
			192	68	
Nordiazepam	50	271	208	29	68
			140	44	
Nordoxepin	20	266	235	14	60
			107	8	
Norfluoxetine	20	296	134	3	26
			30	10	
Norketamine	100	224	179	67	44
			125	108	
Normeperidine	25	234	160	11	22
			56	9	
Norpropoxyphene	50	308	128	20	48
			44	61	
Norsertaline	2000	275	159	29	11
			124	35	
Nortramadol	1000	250	232	5	25
			42	34	
Nortriptyline	20	264	233	31	42
			117	12	
Norvenlafaxine	50	264	107	13	24
			58	17	
Olanzapine	50	313	256	28	27

			198	11	
Oxazepam	50	287	241	2	15
			77	1	
Oxycodone	100	316	241	29	63
			212	19	
Oxymorphone	25	302	227	8	73
			198	8	
Papaverine	500	340	324	347	101
			202	342	
Paroxetine	25	330	192	9	52
			70	6	
PCP	25	244	159	8	56
			91	9	
Pentazocine	50	286	218	72	22
			69	11	
Phenytoin	2500	253	182	43	61
			104	44	
Pregabalin	500	160	124	68	21
			97	28	
Primidone	5000	219	162	40	70
			91	15	
Promethazine	25	285	198	6	43
			86	6	
Propoxyphene	50	340	266	31	20
			128	10	
Propranolol	50	260	183	23	88
			116	44	
Quetiapine	50	384	253	66	64
			221	81	
Ranitidine	500	315	176	225	49
			102	447	
Risperidone	10	411	191	3	8
			110	3	
Ropinirole	10	261	132	4	21
			114	5	
Sertraline	100	306	275	81	85
			159	31	
Sildenafil	100	475	283	25	62
			100	143	
Temazepam	50	301	239	3	32
			177	2	

TFMPP	50	231	188	42	23
			118	22	
Topiramate	1000	362	265	-	52
			207	-	
Tramadol	2000	264	264	10	30
			58	39	
Trazodone	100	372	176	71	84
			148	76	
Triazolam	20	343	308	13	76
			239	5	
Trimipramine	20	295	208	8	71
			193	8	
Vardenafil	100	489	312	99	43
			151	39	
Venlafaxine	50	278	121	20	25
			58	93	
Verapamil	50	455	165	34	36
			150	80	
Zaleplon	25	306	264	15	88
			236	16	
Ziprasidone	100	413	194	129	37
			159	6	
Zolpidem	10	308	235	5	18
			92	4	
Zonisamide	7500	213	132	35	46
			77	20	
Zopiclone	25	389	245	5	39
			112	18	