

Table 1 The Optimized retention time, polarity and transitions of each compound

	RT (min)	+/-	Precursor	Product		RT (min)	+/-	Precursor	Product
BCEP-D8	0.58	-	231	37	EHPHP	5.07	-	285	93
			229*	35				285*	79
BCEP	0.61	-	223	37	TCEP-D12	5.15	+	299	102
			221*	35				297*	102
BCIPP	1.73	-	251	35	TCEP	5.20	+	285	99
			249*	35				285*	63
HO-DPHP	2.01	-	265	108	BBOEHEP-D4	6.68	+	347	247
			265*	93				347*	45
DNBP	2.83	-	209*	79	BBOEHEP	6.70	+	343	243
			209	153				343*	45
BDCIPP-D10	3.10	-	329	35	TBOEP-OH	8.10	+	415	99
			327*	35				415*	45
BDCIPP	3.13	-	319	37	4-HO-TPHP	8.25	-	341	249
			317*	35				341*	93
DPHP-D10	3.16	-	259	159	3-HO-TPHP	8.45	-	341*	249
			259*	98				341	93
DPHP	3.20	-	249	155	EHDPHP-OH	8.90	+	379*	251
			249*	93				379	153
BBOEP-D4	4.08	-	301	199	TPHP-D15	9.20	+	342*	223
			301*	79				342	82
BBOEP	4.13	-	297*	79	TBOEP-D6	9.37	+	405	303
			297	197				405*	47
BCIPHIPP	4.85	-	309	175					
			309*	99					

* the transition used as quantifier

Table 2 The result of method validation. The validation was conducted in 3 days. Three pairs of Qhigh-Qlow spiked samples analyzed for both urine (human) and serum (horse).

	Urine Validation (n=9)				Serum Validation (n=9)			
	Qlow (2ng)		QHigh (6ng)		Qlow (2ng)		QHigh (6ng)	
	Rec	RSD	Rec	RSD	Rec	RSD	Rec	RSD
BCEP	<MLOQ	<MLOQ	104%	11%	<MLOQ	<MLOQ	95%	5%
BCIPP	89%	15%	85%	18%	102%	10%	97%	7%
HO-DPHP	80%	9%	72%	16%	90%	16%	98%	15%
DNBP	97%	13%	84%	16%	92%	12%	85%	28%
BDCIPP	107%	10%	91%	14%	101%	11%	91%	10%
DPHP	102%	9%	93%	14%	95%	11%	89%	9%
BBOEP	104%	13%	92%	15%	81%	11%	90%	14%
BCIPHIPP	99%	12%	101%	15%	83%	9%	93%	5%
EHPHP	194%	11%	193%	15%	142%	39%	114%	62%
BBOEHEP	92%	10%	90%	15%	96%	9%	99%	6%
TCEP	106%	12%	102%	16%	95%	10%	98%	5%
TBOEP-OH	118%	11%	117%	15%	95%	10%	99%	7%
4-HO-TPHP	118%	10%	111%	14%	63%	66%	68%	62%
3-HO-TPHP	110%	9%	106%	14%	88%	26%	88%	37%
HO-EHDPHP	133%	14%	128%	15%	97%	10%	96%	9%