Electronic Supplementary Material (ESI) for RSC Advances.

Comparison of two online extraction systems and development of the online SPE-HPLC-DAD method to simultaneously determine ten β-amino alcohol drugs in plasma

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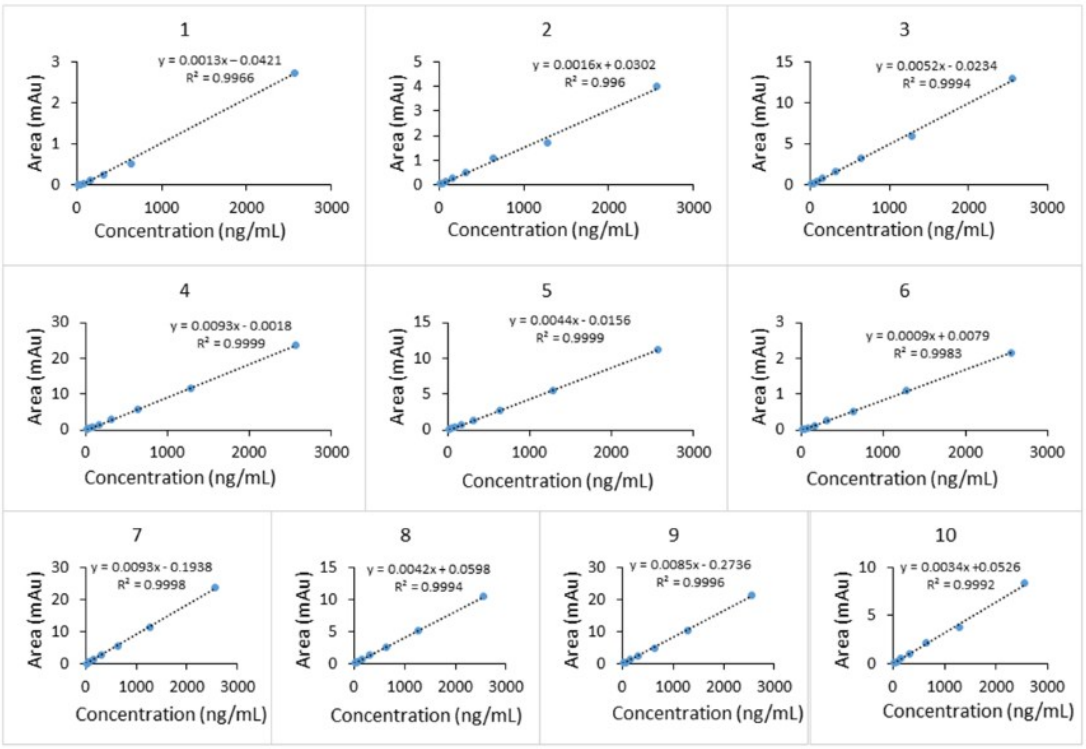

Fig.S1. The linearity and plot of concentration and peak area for each analyte

Table S1 the mobilephase condition of online SPE-HPLC system

Time (min)	Pump right			Pump left			Valve position
	Flow rate (mL/min)	Water (%)	ACN (%)	Flow rate (mL/min)	5 mM NaH_2PO_4 buffer (%)	ACN	
0	1	100	0	1	98	2	A
2	1	100	0	1	98	2	B
3	0.2	100	0	1	98	2	B
4	0.2	100	0	1	98	2	B
10	0.2	80	20	1	↓	↓	A
20	0.2	100	0	1	44	56	A
21	1	100	0	1	98	2	A
27	1	100	0	1	98	2	A

Table S2 the mobilephase condition of online TFC-HPLC system

Time (min)	Pump right			Pump left			Valve position
	Flow rate (mL/min)	Water (%)	ACN (%)	Flow rate (mL/min)	5 mM NaH_2PO_4 buffer (%)	ACN	
0	3	98	2	1	98	2	A
1	3	98	2	1	98	2	B
3	1	98	2	1	98	2	B
4	0.2	↓	↓	1	98	2	B
10	0.2	10	90	1	↓	↓	B
18	0.2	↓	↓	1			A
20	1	98	2	1	44	56	A
21	3	98	2	1	98	2	A
25	3	98	2	1	98	2	A

Table S3 The recovery of each compound

No	Retention time (min)	Analyte	Extration recovery			
			Conc.(ng/mL)	Mean	SD	RSD (%)
1	5.14	Adrenalin	40	94.29	3.86	4.09
			160	95.72	5.02	5.24
			1280	95.38	4.85	5.08
2	9.61	Salbutamol	40	94.33	3.92	4.16
			160	97.69	5.26	5.38
			1280	97.58	5.26	5.39
3	10.49	Ephedrine	40	96.45	4.01	4.16
			160	93.99	5.39	5.73
			1280	98.77	4.29	4.34
4	11.58	Carteolol	40	98.51	3.38	3.43
			160	93.43	4.11	4.40
			1280	94.78	4.36	4.60
5	12.58	Clorprenaline	40	95.51	4.81	5.04
			160	96.18	5.04	5.24
			1280	93.08	4.36	4.68
6	12.97	Timolol hydrogenmaleate	40	94.58	4.28	4.53
			160	93.74	4.68	4.99
			1280	92.38	4.62	5.00
7	13.53	Clenbuterol	40	94.38	4.64	4.92
			160	95.79	4.74	4.95
			1280	97.45	4.82	4.95
8	13.82	Mexiletine	40	98.53	5.70	5.79
			160	96.24	4.98	5.17
			1280	95.65	4.23	4.42
9	15.55	Propranolol	40	93.22	4.66	5.00
			160	94.55	4.03	4.26
			1280	96.04	4.38	4.56
10	17.36	Carvedilol	40	93.87	4.46	4.75
			160	94.56	4.35	4.60
			1280	94.77	4.27	4.51