

**Appendix A.** Run method used in HPLC analysis

Time (min)	% Eluent A (Buffer A)	% Eluent B (Buffer B)
0	100	0
25	87	13
68	45	55
70.50	0	100
73	0	100
78	100	0
82	100	0

Buffer A (10mM sodium acetate, pH 6.4 with 6% acetic acid) and Buffer B (Buffer A + Acetonitrile (v/v; 40:60))

**Appendix B.** Standard retention time (min) of amino acids mixture used in HPLC analysis

SN	Amino acids mixture	Retention time (min)
1	Phosphoserine	2.59
2	Aspartic acid	3.54
3	Glutamic acid	4.02
4	Amino adipic acid	4.78
5	OH Proline	5.73
6	Phosphoenolamine	7.68
7	Serine	8.98
8	Glycine	9.55
9	Asparagine	10.63
10	Taurine	11.89
11	Threonine	12.79
12	Histidine	14.49
13	Alanine	14.98
14	$\beta$ -amino butyric acid	15.93
15	Carnosine	17.28
16	Proline	18.25
17	Arginine	20.63
18	3-Methyl histidine	21.94
19	1-Methyl histidine	23.46
20	Anserine	24.34
21	Tyrosine	30.39
22	Valine	35.24
23	Methionine	36.07
24	Cystathionine	38.10
25	Cysteine	39.15
26	Isoleucine	41.56
27	Leucine	41.76
28	OH Lysine	43.91
29	Tryptophan	45.69
30	Phenylalanine	46.54
31	Ornithine	48.29
32	Lysine	50.12

### Appendix C. Chromatogram of Standard amino acids mixture

