

Proteins	Peptide <i>m/z</i>	Sequence	In solution Relative error (ppm)	Lab-on-plate Relative error (ppm)
Hemoglobin beta (human & equine)	1274.7255	<sub>32</sub> LLVVYPWTQR <sub>41</sub>	1.4120	-2.5103
Serotransferrin (human)	1529.7529	<sub>588</sub> KPVEEYANCHLAR <sub>600</sub>	-3.4646	-7.9097
EPB4.2 (human)	1113.4881	<sub>428</sub> CEDITQNYK <sub>436</sub>	-1.7063	-5.0292
	949.4771	<sub>454</sub> EKMEREK <sub>460</sub>	-1.3691	-2.5277
Alpha 2-Macroglobulin (human)	1334.7215	<sub>350</sub> LSFVKVDSHFR <sub>360</sub>	9.2154	1.1987
Hemoglobin alpha (equine)	1499.7237	<sub>18</sub> VGGHAGEFGAEALER <sub>32</sub>	8.7349	2.6671
	1833.8918	<sub>42</sub> TYFPHFDLSHGSAQVK <sub>57</sub>	-	9.1608
Myoglobin (equine)	1815.9024	<sub>2</sub> GLSDGEWQQVLNVWGK <sub>17</sub>	-0.6608	1.8723

**Table S1** Peptide mass fingerprinting of whole human blood mixed with defibrinated equine blood from in solution and lab on plate digests. Table reports human and equine blood specific signatures