

Characterization of surface materials on African sculptures: new insights through proteomic analysis

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Electronic Supplementary Information

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Supplementary Table S1

Proteins identified in the samples from the Bamana *boli* and the Yoruba female figure: sample number, protein accession number, protein name, taxonomy source, number of total and unique peptides supporting the identification, percentage of total and unique sequence coverage, sequence length and total number of identified MS/MS spectra. Proteins for which the identification down to the species level could not be achieved, are likely to come from the same species of the other proteins identified in the same sample (e.g. proteins from *Saurial/Aves/Neognathae/Galliformes/Phasianinae* can be likely ascribed to the species *Gallus Gallus*, *Pecora/Artiodactyla/Bovidae* to *Capra hircus/Ovis aries*, and *Eutheria/Boreoeutheria* to either *Capra hircus/Ovis aries* or *Canis lupus familiaris*). Serotransferrin from *Sus scrofa* is most likely a contamination.

| Sample | Accession number | Protein name | Species | Total peptides | Unique peptides | Tot sequence coverage (%) | Unique sequence coverage (%) | Sequence length | MSMS spectra |
|--------------------|----------------------|-----------------------------------|--|----------------|-----------------|---------------------------|------------------------------|-----------------|--------------|
| Bamana boli | | | | | | | | | |
| S1 | P19121 | Serum albumin | <i>Gallus gallus</i> | 39 | 39 | 67.6 | 67.6 | 615 | 145 |
| | P85295, P14639 | Serum albumin | <i>Capra hircus</i> , <i>Ovis aries</i> | 21 | 10 | 41.2 | 22.7 | 607 | 77 |
| | P08250 | Apolipoprotein A | <i>Gallus gallus</i> | 14 | 14 | 51.9 | 51.9 | 264 | 40 |
| | P02077 | Hemoglobin subunit beta-A | <i>Capra hircus</i> | 14 | 14 | 51.9 | 51.9 | 264 | 40 |
| | P0CH25, P68240 | Hemoglobin subunit alpha-1 | <i>Capra hircus</i> , <i>Ovis aries</i> | 11 | 3 | 85.9 | 36.6 | 142 | 91 |
| | P02078 | Hemoglobin subunit beta-C | <i>Capra hircus</i> | 10 | 3 | 72.5 | 21.8 | 142 | 112 |
| | P02789 | Ovotransferrin | <i>Gallus gallus</i> | 10 | 10 | 20 | 20 | 705 | 22 |
| | P02001 | Hemoglobin subunit alpha-D | <i>Gallus gallus</i> | 9 | 3 | 77.3 | 31.2 | 141 | 45 |
| | - | Histone H4 | Unspecific | 9 | 9 | 57.3 | 57.3 | 103 | 25 |
| | - | Beta actin | Unspecific | 8 | 0 | 30.2 | 0 | 361 | 12 |
| | P01994 | Hemoglobin subunit alpha-A | <i>Gallus gallus</i> | 8 | 3 | 54.9 | 21.8 | 142 | 95 |
| | XP_017913668, P00922 | Carbonic anhydrase 2 | <i>Capra hircus</i> , <i>Ovis aries</i> | 7 | 7 | 42.3 | 42.3 | 260 | 29 |

| | | | | | | | | |
|--------|---------------------------------------|-------------------------------|---|---|------|------|------|----|
| P14448 | Fibrinogen alpha chain | <i>Gallus gallus</i> | 7 | 7 | 12.6 | 12.6 | 741 | 27 |
| Q02020 | Fibrinogen beta chain | <i>Gallus gallus</i> | 7 | 7 | 20.3 | 20.3 | 463 | 18 |
| - | Hemoglobin subunit beta | <i>Neognathae</i> | 6 | 3 | 51.4 | 34.9 | 146 | 19 |
| P07630 | Carbonic anhydrase 2 | <i>Gallus gallus</i> | 6 | 6 | 36.5 | 36.5 | 260 | 10 |
| - | Tubulin beta-6 chain | <i>Neognathae</i> | 6 | 6 | 18.8 | 18.8 | 446 | 9 |
| P01875 | Ig mu chain C region | <i>Gallus gallus</i> | 5 | 5 | 19.7 | 19.7 | 446 | 11 |
| - | Histone H1 | <i>Neognathae</i> | 5 | 5 | 22.4 | 22.4 | 219 | 13 |
| - | Fibrinogen gamma-B chain | <i>Boreoeutheria</i> | 5 | 2 | 12.4 | 6.3 | 444 | 13 |
| P60524 | Hemoglobin subunit beta | <i>Canis lupus familiaris</i> | 5 | 2 | 41.8 | 19.2 | 146 | 16 |
| P60529 | Hemoglobin subunit alpha | <i>Canis lupus familiaris</i> | 4 | 1 | 51.1 | 8.5 | 141 | 12 |
| - | Histone H2 | <i>Eukaryota</i> | 4 | 2 | 48.8 | 15.5 | 129 | 45 |
| P02259 | Histone H5 | <i>Gallus gallus</i> | 4 | 4 | 22.1 | 22.1 | 190 | 18 |
| P20763 | Ig lambda chain C region | <i>Gallus gallus</i> | 4 | 4 | 81.6 | 81.6 | 103 | 19 |
| - | Histone H2B | Unspecific | 3 | 1 | 25 | 12.9 | 116 | 11 |
| - | Tubulin alpha | Unspecific | 3 | 3 | 10.5 | 10.5 | 449 | 4 |
| - | Glutathione peroxidase | <i>Pecora</i> | 2 | 2 | 10.2 | 10.2 | 205 | 5 |
| - | Histone H3 | Unspecific | 2 | 2 | 26.5 | 26.5 | 136 | 30 |
| - | Histone H2A | <i>Eukaryota</i> | 2 | 0 | 33.9 | 0 | 112 | 11 |
| - | Fibronectin | <i>Neognathae</i> | 2 | 2 | 2.9 | 2.9 | 1256 | 2 |
| - | Fibrinogen beta chain | <i>Mammalia</i> | 2 | 2 | 3.1 | 3.1 | 479 | 4 |
| P15575 | Band 3 anion transport protein | <i>Gallus gallus</i> | 2 | 2 | 2.3 | 2.3 | 922 | 2 |

| | | | | | | | | | |
|-----------|------------------------|-------------------------------------|---|----|------|------|------|------|-----|
| - | Ankyrin 1 | <i>Eukaryota</i> | 2 | 2 | 1.7 | 1.7 | 1862 | 3 | |
| - | Transthyretin | Unspecific | 2 | 2 | 21.3 | 21.3 | 150 | 3 | |
| - | Peroxiredoxin-2 | <i>Pecora</i> | 2 | 2 | 9.5 | 9.5 | 199 | 3 | |
| S2 | P19121 | Serum albumin | <i>Gallus gallus</i> | 29 | 29 | 60.3 | 60.3 | 615 | 71 |
| | P85295, P14639 | Serum albumin | <i>Capra hircus,</i> <i>Ovis aries</i> | 15 | 8 | 32.3 | 20.3 | 607 | 48 |
| | P02001 | Hemoglobin subunit alpha-D | <i>Gallus gallus</i> | 12 | 3 | 92.2 | 31.2 | 141 | 38 |
| | P02077 | Hemoglobin subunit beta-A | <i>Capra hircus</i> | 11 | 3 | 78.6 | 25.5 | 145 | 139 |
| | P01994 | Hemoglobin subunit alpha-A | <i>Gallus gallus</i> | 10 | 1 | 70.4 | 10.6 | 142 | 92 |
| | P02078 | Hemoglobin subunit beta-C | <i>Capra hircus</i> | 7 | 3 | 77.5 | 29.6 | 142 | 46 |
| | XP_017895579, P68240 | Hemoglobin subunit alpha-1/2 | <i>Capra hircus,</i> <i>Ovis aries</i> | 7 | 2 | 73.2 | 30.3 | 142 | 57 |
| | - | Hemoglobin subunit beta | <i>Aves</i> | 6 | 2 | 56.5 | 23.1 | 147 | 14 |
| | P02789 | Ovotransferrin | <i>Gallus gallus</i> | 6 | 6 | 11.2 | 11.2 | 705 | 13 |
| | - | Fibrinogen beta chain | <i>Artiodactyla</i> | 4 | 3 | 10 | 7.9 | 468 | 9 |
| | P08250 | Apolipoprotein A-1 | <i>Gallus gallus</i> | 5 | 5 | 17.8 | 17.8 | 264 | 12 |
| | - | Beta actin | Unspecific | 4 | 2 | 22.2 | 14.4 | 361 | 8 |
| | XP_017913668, P00922 | Carbonic anhydrase 2 | <i>Capra hircus,</i> <i>Ovis aries</i> | 4 | 4 | 30 | 30 | 260 | 10 |
| | - | Complement component 3 | <i>Euarchontoglires</i> | 4 | 4 | 3.8 | 3.8 | 1663 | 12 |
| | - | Carbonic anhydrase 2 | <i>Eukaryota</i> | 4 | 4 | 22.3 | 22.3 | 260 | 9 |
| | P02259 | Histone H5 | <i>Gallus Gallus</i> | 3 | 3 | 22.1 | 22.1 | 190 | 10 |
| | - | Tubulin alpha | Unspecific | 3 | 3 | 10.5 | 10.5 | 449 | 6 |
| | - | Histone H1 | <i>Neognathae</i> | 3 | 3 | 12.8 | 12.8 | 218 | 6 |
| | - | Fibrinogen alpha | <i>Galliformes</i> | 3 | 3 | 4 | 4 | 741 | 4 |

| | | | | | | | | | |
|-----------|----------------------------|-------------------------------------|---------------------------------|----|----|------|------|------|-----|
| | | chain | | | | | | | |
| | - | Tubulin beta | <i>Sarcopterygii</i> | 2 | 2 | 6.3 | 6.3 | 446 | 6 |
| | - | Histone H3 | <i>Amniota</i> | 2 | 1 | 32.4 | 23.5 | 136 | 12 |
| | - | Peroxiredoxin-2 | <i>Eukaryota</i> | 2 | 2 | 10.2 | 10.2 | 177 | 3 |
| | - | Beta-fibrinogen | <i>Neognathae</i> | 2 | 2 | 6.9 | 4.8 | 463 | 5 |
| | - | L-lactate dehydrogenase A | <i>Sauria</i> | 2 | 1 | 12 | 6 | 332 | 8 |
| S3 | P85295, P14639 | Serum albumin | <i>Capra hircus, Ovis aries</i> | 47 | 44 | 61.9 | 61.9 | 607 | 252 |
| | P02077 | Hemoglobin subunit beta-A | <i>Capra hircus</i> | 18 | 4 | 97.2 | 32.4 | 145 | 236 |
| | XP_017895579, P68240 | Hemoglobin subunit alpha-1/2 | <i>Capra hircus, Ovis aries</i> | 14 | 5 | 90.8 | 45.1 | 142 | 139 |
| | P19121 | Serum albumin | <i>Gallus gallus</i> | 13 | 13 | 26.3 | 26.3 | 615 | 34 |
| | P02078 | Hemoglobin subunit beta-C | <i>Capra hircus</i> | 12 | 4 | 81.7 | 31 | 142 | 164 |
| | XP_017913668, P00922 | Carbonic anhydrase 2 | <i>Capra hircus, Ovis aries</i> | 11 | 11 | 54.2 | 54.2 | 260 | 50 |
| | - | Fibrinogen gamma-B chain | <i>Bovidae</i> | 9 | 5 | 19.4 | 10.4 | 444 | 21 |
| | P02001 | Hemoglobin subunit alpha-D | <i>Gallus gallus</i> | 6 | 6 | 53.9 | 53.9 | 141 | 15 |
| | P60524 | Hemoglobin subunit beta | <i>Canis lupus familiaris</i> | 6 | 2 | 63.7 | 19.2 | 146 | 18 |
| | - | Fibronectin | <i>Artiodactyla</i> | 5 | 5 | 3.2 | 3.2 | 2478 | 7 |
| | - | Peroxiredoxin-2 | <i>Pecora</i> | 5 | 5 | 25.6 | 25.6 | 199 | 7 |
| | - | Histone H2A | <i>Eukaryota</i> | 4 | 4 | 48.8 | 48.8 | 129 | 13 |
| | XP_005692259, XP_004015160 | Haptoglobin | <i>Capra hircus, Ovis aries</i> | 4 | 4 | 15.5 | 15.5 | 401 | 7 |
| | - | Hemoglobin subunit beta | <i>Neognathae</i> | 4 | 3 | 38.4 | 32.2 | 146 | 8 |
| | P12303 | Transthyretin | <i>Ovis aries</i> | 4 | 4 | 40.8 | 40.8 | 147 | 5 |
| | P22741 | Hemoglobin | <i>Gallus gallus</i> | 4 | 0 | 46.8 | 0 | 141 | 50 |

| subunit alpha-A | | | | | | | | | |
|-------------------------------|---|-------------------------------------|----------------------|----|------|------|------|-----|-----|
| XP_005690953, NP_001009393 | Antithrombin-III | <i>Capra hircus, Ovis aries</i> | 4 | 4 | 14 | 14 | 465 | 6 | |
| - | Glutathione peroxidase 1 | <i>Pecora</i> | 3 | 2 | 16.1 | 10.2 | 205 | 8 | |
| - | Igh protein | Unspecific | 3 | 3 | 21.2 | 21.2 | 113 | 5 | |
| P09571 | Serotransferrin | <i>Sus scrofa</i> | 3 | 3 | 3.7 | 3.7 | 696 | 5 | |
| - | Superoxide dismutase | <i>Artiodactyla</i> | 3 | 3 | 31.6 | 31.6 | 152 | 14 | |
| - | Ankyrin 1 | <i>Eukaryota</i> | 3 | 3 | 3.1 | 3.1 | 1862 | 6 | |
| - | Histone 4 | Unspecific | 3 | 3 | 32 | 32 | 103 | 5 | |
| - | Flavin reductase | <i>Eutheria</i> | 3 | 3 | 21.4 | 21.4 | 206 | 14 | |
| P60529 | Hemoglobin subunit alpha | <i>Canis lupus familiaris</i> | 3 | 0 | 46.1 | 0 | 141 | 7 | |
| - | Histone H2B | Unspecific | 2 | 2 | 23.4 | 23.4 | 124 | 18 | |
| - | Apolipoprotein A-1 | <i>Aves</i> | 2 | 2 | 9.1 | 9.1 | 264 | 3 | |
| - | Ubiquitin | Unspecific | 2 | 2 | 28.6 | 28.6 | 63 | 3 | |
| P0CH26 | Hemoglobin subunit alpha-1 | <i>Capra hircus</i> | 2 | 2 | 87.3 | 30.3 | 142 | 102 | |
| - | Spectrin beta chain | <i>Amniota</i> | 2 | 2 | 1.2 | 1.2 | 2128 | 3 | |
| - | Ig lambda chain V-1 region | <i>Phasianinae</i> | 2 | 2 | 35 | 35 | 103 | 3 | |
| - | Erythrocyte band 7 integral membrane protein | <i>Eukaryota</i> | 2 | 2 | 7.6 | 7.6 | 288 | 2 | |
| XP_005675218, P29701 | Alpha-2-HS-glycoprotein | <i>Capra hircus, Ovis aries</i> | 2 | 2 | 11.3 | 11.3 | 364 | 3 | |
| - | Thioredoxin | <i>Mammalia</i> | 2 | 2 | 22.9 | 22.9 | 105 | 2 | |
| - | Fibrinogen beta chain | <i>Neognathae</i> | 2 | 2 | 4.8 | 4.8 | 463 | 3 | |
| Yoruba female figure | | | | | | | | | |
| S3 | P19121 | Serum albumin | <i>Gallus gallus</i> | 28 | 28 | 52.8 | 52.8 | 615 | 133 |

| | | | | | | | | |
|------------------------------------|-----------------------------------|---|----|----|------|------|-----|-----|
| P08250 | Apolipoprotein A | <i>Gallus gallus</i> | 14 | 14 | 52.3 | 52.3 | 264 | 40 |
| P02001 | Hemoglobin subunit alpha-D | <i>Gallus gallus</i> | 11 | 2 | 88.7 | 26.2 | 141 | 51 |
| P02789 | Ovotransferrin | <i>Gallus gallus</i> | 11 | 7 | 16.6 | 12.1 | 705 | 24 |
| - | Tubulin beta-6 chain | <i>Sauria</i> | 10 | 7 | 27.8 | 20.4 | 446 | 37 |
| P01994 | Hemoglobin subunit alpha-A | <i>Gallus gallus</i> | 9 | 6 | 69 | 43 | 142 | 342 |
| Q02020 | Fibrinogen beta chain | <i>Gallus gallus</i> | 9 | 9 | 25.1 | 25.1 | 463 | 34 |
| - | Histone H2 | <i>Eukaryota</i> | 8 | 7 | 61.2 | 54.3 | 129 | 48 |
| - | Hemoglobin subunit beta | <i>Neognathae</i> | 6 | 0 | 53.4 | 0 | 146 | 25 |
| P07630, XP_021243182 | Carbonic anhydrase 2 | <i>Gallus gallus, Numida meleagris</i> | 6 | 6 | 26.9 | 26.9 | 260 | 16 |
| P08288, XP_021272941, XP_014819709 | Histone H1 | <i>Gallus gallus, Numida meleagris, Calidris pugnax</i> | 6 | 6 | 26 | 26 | 219 | 15 |
| P14448 | Fibrinogen alpha chain | <i>Gallus gallus</i> | 6 | 6 | 10.1 | 10.1 | 741 | 32 |
| - | Histone H4 | Unspecific | 6 | 5 | 54.4 | 42.7 | 103 | 17 |
| - | Tubulin alpha | Unspecific | 5 | 1 | 17.8 | 3.1 | 449 | 18 |
| - | Histone H2B | <i>Eukaryota</i> | 5 | 1 | 40.5 | 11.9 | 126 | 77 |
| P20763 | Ig lambda chain C region | <i>Gallus gallus</i> | 5 | 5 | 82.5 | 82.5 | 103 | 33 |
| - | Beta actin | Unspecific | 4 | 4 | 13.2 | 13.2 | 371 | 9 |
| P02259 | Histone H5 | <i>Gallus gallus</i> | 4 | 3 | 22.6 | 16.3 | 190 | 16 |
| P13648 | Lamin A | <i>Gallus gallus</i> | 3 | 3 | 5 | 5 | 657 | 5 |
| P27042 | Lysozyme G | <i>Gallus gallus</i> | 3 | 3 | 23.2 | 23.2 | 211 | 4 |
| - | Histone H3 | Unspecific | 3 | 1 | 36 | 5.1 | 136 | 13 |
| - | Histone H3.2 | Unspecific | 2 | 1 | 40.4 | 23.5 | 136 | 28 |

| | | | | | | | | | |
|-------------------------|--|--|----------------------|---|------|------|------|------|----|
| - | Protein S100-A9 | <i>Catarrhini</i> | 2 | 2 | 24.6 | 24.6 | 114 | 3 | |
| P08940 | Myeloid protein | <i>Gallus gallus</i> | 2 | 2 | 7.1 | 7.1 | 326 | 3 | |
| - | Polyubiquitin | Unspecific | 2 | 2 | 39.7 | 39.7 | 63 | 8 | |
| - | Peroxiredoxin -1 | Unspecific | 2 | 2 | 12.1 | 12.1 | 199 | 4 | |
| P10184, XP_021266329 | Ovoinhibitor | <i>Gallus gallus,</i> <i>Numida</i> <i>meleagris</i> | 2 | 2 | 10.6 | 10.6 | 472 | 4 | |
| - | Hemoglobin subunit rho | <i>Aves</i> | 2 | 2 | 15 | 15 | 147 | 5 | |
| - | Keratin, type II cytoskeletal 1 | <i>Mammalia</i> | 2 | 1 | 16.2 | 3.1 | 619 | 27 | |
| S4 | - | Desmoplakin isoform X1 | <i>Mammalia</i> | 4 | 4 | 1.3 | 1.3 | 2871 | 7 |
| P81023 | - | Hemoglobin subunit alpha-A | <i>Gallus gallus</i> | 3 | 3 | 33.8 | 33.8 | 142 | 13 |
| - | - | Protein S100-A9 | <i>Hominoidea</i> | 3 | 3 | 37.7 | 37.7 | 114 | 14 |
| - | - | Prolactin induced protein | <i>Hylobatidae</i> | 3 | 3 | 29.5 | 29.5 | 146 | 5 |
| - | - | Junction Plakoglobin | <i>Mammalia</i> | 3 | 3 | 5.1 | 5.1 | 745 | 3 |
| - | - | Actin | Unspecific | 3 | 3 | 9.8 | 9.8 | 376 | 6 |
| P31151 | - | Protein S100-A7 | <i>Homo sapiens</i> | 3 | 3 | 22.8 | 22.8 | 101 | 9 |
| - | - | Desmoglein-1 | <i>Catarrhini</i> | 2 | 2 | 2.8 | 2.8 | 1049 | 4 |

Supplementary Table S2

Peptides identified in the samples from the Bamana *boli* and Yoruba female figure: sample number, protein name and accession number, peptide sequence, species matching on the NCBI database, peptide length and mass, MaxQuant score, and total number of identified MS/MS spectra. Species in parentheses are unlikely due to geographical reasons.

| Sample | Protein name (accession No.) | Sequence | BLAST ID | Length (aa) | Mass | MQ score | Matched spectra |
|---------------------------------|--------------------------------|--|--|-------------|-----------|----------|-----------------|
| Bamana <i>boli</i> | | | | | | | |
| S1 | Serum albumin (P19121) | CVANEDAPECSKPLPSIILDEICQVEK | <i>Gallus gallus</i> | 27 | 3113.4719 | 148.53 | 6 |
| | | HPFLYAPAILSFAVDFEHALQSCCK | <i>Gallus gallus</i> | 25 | 2920.404 | 71.54 | 1 |
| | | MACSEGYSIVIHDTCTCR | <i>Gallus gallus</i> | 17 | 2010.8962 | 119.54 | 1 |
| | | MACSEGYSIVIHDTCTCRK | <i>Gallus gallus</i> | 18 | 2138.9911 | 71.98 | 2 |
| | | MMSNLCSSQQDVFSGK | <i>Gallus gallus</i> | 15 | 1730.7426 | 355.26 | 16 |
| | | MPQVPTDLLLETGKK | <i>Gallus gallus</i> | 15 | 1668.912 | 89.136 | 1 |
| | | KMPQVPTDLLLETGKK | <i>Gallus gallus</i> | 16 | 1797.007 | 137.27 | 6 |
| | | KMPQVPTDLLLETGK | <i>Gallus gallus</i> | 15 | 1668.912 | 182.1 | 6 |
| | | QFGDRVFQAR | <i>Gallus gallus</i> | 10 | 1222.6207 | 93.649 | 2 |
| | | QLIYLSQKYPK | <i>Gallus gallus</i> | 11 | 1379.7813 | 154.01 | 1 |
| | | RHPEFSIQLIMR | <i>Gallus gallus</i> | 12 | 1525.8188 | 182.71 | 5 |
| | | RMACSEGYSIVIHDTCTCR | <i>Gallus gallus</i> | 18 | 2166.9973 | 115.53 | 2 |
| | | SFEAGHDAFMAEFVYEYSR | <i>Gallus gallus</i> | 19 | 2254.963 | 158.64 | 4 |
| | | TNCDLLHDHGEADFLK | <i>Gallus gallus</i> | 16 | 1883.8472 | 263.9 | 2 |
| | VSQPDFVQPYQRPASDVICQEYQDNR | <i>Gallus gallus</i> | 26 | 3138.4465 | 133.48 | 4 | |
| | Serum albumin (P85295, P14639) | DVFLGSFLYEYSR | <i>Capra hircus</i> , <i>Ovis aries</i> | 13 | 1594.7668 | 261.52 | 5 |
| | | EDPHACYATVFDKLLK | <i>Capra hircus</i> , <i>Ovis aries</i> | 15 | 1792.8454 | 167.18 | 2 |
| FNDLGEENFQGLVLIAFSQYLQQCPFDEHVK | | <i>Capra hircus</i> , <i>Ovis aries</i> | 31 | 3684.7559 | 152.88 | 4 | |

| | | | | | | |
|--|-------------------------------|--|----|-----------|--------|----|
| | VATLRETYGDMADCCEK | <i>Capra hircus,</i> <i>Ovis aries</i> | 17 | 2017.8543 | 147.64 | 2 |
| | TCVADESHAGCDK | <i>Capra hircus,</i> <i>Ovis aries</i> | 13 | 1448.566 | 244.27 | 3 |
| Apolipoprotein A (P08250) | LISFLDELQK | <i>Gallus gallus</i> | 10 | 1204.6703 | 213.85 | 4 |
| | NRLISFLDELQK | <i>Gallus gallus</i> | 12 | 1474.8144 | 162.26 | 3 |
| Hemoglobin subunit beta-A (P02077) | HHGSEFTPLLQAEFQK | <i>Capra hircus</i> | 16 | 1867.9217 | 187.74 | 15 |
| Hemoglobin subunit alpha (POCH25, P68240) | LLSHSLLVTLACHLPNDFTPAVHASLDK | <i>Capra hircus,</i> <i>Ovis aries,</i> <i>Ammotragus lervia</i> | 28 | 3068.6117 | 191.73 | 8 |
| Hemoglobin subunit beta-C (P02078) | FFEHFGLSSADAVLGNNAK | <i>Capra hircus</i> | 19 | 2023.964 | 300.49 | 32 |
| | FFEHFGLSSADAVLGNNAKVK | <i>Capra hircus</i> | 21 | 2251.1273 | 182.28 | 4 |
| | LLVVYPWTQRFFEHFGLSSADAVLGNNAK | <i>Capra hircus</i> | 29 | 3279.6717 | 147.91 | 4 |
| Ovotransferrin (P02789) | GAIEWEGIESGSVEQAVAK | <i>Gallus gallus</i> | 19 | 1958.9585 | 320.01 | 2 |
| | HTTVNENAPDQK | <i>Gallus gallus</i> | 12 | 1352.6321 | 190.57 | 2 |
| | TCNPSDILQMCSFLEGK | <i>Gallus gallus</i> | 17 | 1998.8849 | 222.55 | 2 |
| Hemoglobin subunit alpha-D (P02001) | NVDNLSQAMAELSNLHAYNLR | <i>Gallus gallus</i> | 21 | 2372.1543 | 260.29 | 8 |
| | NVDNLSQAMAELSNLHAYNLRVDPVNFK | <i>Gallus gallus</i> | 28 | 3171.5771 | 112.88 | 4 |
| Hemoglobin subunit alpha-A (P01994) | GIFTKIAGHAEYGAETLER | <i>Gallus gallus,</i> <i>(Meleagris gallopavo)</i> | 20 | 2191.0909 | 84.195 | 1 |
| | IAGHAEYGAETLER | <i>Gallus gallus,</i> <i>(Meleagris gallopavo)</i> | 15 | 1644.7744 | 136.38 | 9 |
| Carbonic anhydrase 2 (XP_017913668, P00922) | AVVPDPALKPLALLYEQAASR | <i>Capra hircus,</i> <i>Ovis aries</i> | 21 | 2221.2471 | 133.93 | 7 |
| | SLNFNAEGEPPELLMLANWRPAQPLK | <i>Capra hircus,</i> <i>Ovis aries</i> | 25 | 2837.4534 | 107.78 | 9 |
| Fibrinogen alpha chain (P14448) | ILENMHESCK | <i>Gallus gallus</i> | 11 | 1346.5959 | 142.83 | 1 |

| | | | | | | |
|--|--------------------------------|---|----|-----------|--------|---|
| | LDRLLPDLESFFTHDSVSTSSR | <i>Gallus gallus</i> | 22 | 2521.2449 | 139.2 | 5 |
| | LLPDLESFFTHDSVSTSSR | <i>Gallus gallus</i> | 19 | 2137.0328 | 177.38 | 4 |
| | MQGIIDDDTDQNYSQLR | <i>Gallus gallus</i> | 15 | 1782.7843 | 248.67 | 4 |
| Fibrinogen beta chain (Q02020) | GGETSEMYIIQPDPFTTPYR | <i>Gallus gallus</i> | 20 | 2301.0623 | 203.11 | 2 |
| Carbonic anhydrase 2 (P07630) | FAEALKHPDGLAVVGIFMK | <i>Gallus gallus, (Pelecanus crispus)</i> | 19 | 2042.1023 | 190.18 | 3 |
| Ig mu chain C region (P01875) | LSVTCMAQGFNPPHLFVR | <i>Gallus gallus</i> | 18 | 2073.0288 | 124.2 | 4 |
| | VITPSFVDIFISK | <i>Gallus gallus</i> | 13 | 1464.8228 | 226.29 | 1 |
| | VSNMVNADGLEVSWWK | <i>Gallus gallus</i> | 16 | 1833.872 | 191.01 | 1 |
| Hemoglobin subunit beta (P60524) | FFDSFGDLSTPDAVMSNAK | <i>Canis lupus familiaris, (Canis lupus laniger)</i> | 19 | 2047.9197 | 265.12 | 9 |
| Hemoglobin subunit alpha (P60529) | FFTAVSTVLTSK | <i>Canis lupus familiaris, (Vulpes vulpes)</i> | 12 | 1299.7075 | 286.73 | 2 |
| | IGGHAGDYGGALDR | <i>Canis lupus familiaris, (Vulpes vulpes, Chrysocyon brachyurus)</i> | 15 | 1486.6801 | 177.36 | 4 |
| | VADALTTAVAHLLDLPGALSALSDDLHAYK | <i>Canis lupus familiaris, (Vulpes vulpes, Chrysocyon brachyurus)</i> | 29 | 2947.5291 | 191.41 | 5 |
| Histone H5 (P02259) | RSASHPTYSEMIAAAIR | <i>Gallus gallus, (Meleagris gallopavo)</i> | 17 | 1859.9312 | 132.15 | 5 |

| | | | | | | | |
|-----------|--|----------------------------------|---|----|-----------|--------|---|
| | | SASHPTYSEMIAAAIR | <i>Gallus gallus, (Meleagris gallopavo)</i> | 16 | 1703.8301 | 223.08 | 7 |
| | Ig lambda chain C region (P20763) | VAPTITLFPSSKEELNEATK | <i>Gallus gallus</i> | 20 | 2184.1678 | 125.22 | 1 |
| | Band 3 anion transport protein (P15575) | AAATVMADR | <i>Gallus gallus, (Coturnix japonica)</i> | 9 | 904.44365 | 169.12 | 1 |
| | | FVLTVLGPDSR | <i>Gallus gallus, (Coturnix japonica)</i> | 12 | 1299.7187 | 206.73 | 1 |
| S2 | Serum albumin (P19121) | APFSEVSK | <i>Gallus gallus</i> | 8 | 863.43888 | 172.15 | 2 |
| | | CVANEDAPECSKPLPSIILDEICQVEK | <i>Gallus gallus</i> | 27 | 3113.4719 | 74.763 | 2 |
| | | FVHDSIGVHK | <i>Gallus gallus</i> | 10 | 1137.5931 | 147.29 | 2 |
| | | KMPQVPTDLLLETGK | <i>Gallus gallus</i> | 15 | 1668.912 | 113.24 | 2 |
| | | KMPQVPTDLLLETGKK | <i>Gallus gallus</i> | 16 | 1797.007 | 95.197 | 2 |
| | | MACSEGYSIVIHDTCR | <i>Gallus gallus</i> | 17 | 2010.8962 | 93.51 | 3 |
| | | MMSNLCSQQDVFSGK | <i>Gallus gallus</i> | 15 | 1730.7426 | 223.03 | 3 |
| | | QFGDRVFQAR | <i>Gallus gallus</i> | 10 | 1222.6207 | 101.54 | 2 |
| | | QLIYLSQKYPK | <i>Gallus gallus</i> | 11 | 1379.7813 | 106.88 | 2 |
| | | QLIYLSQKYPKAPFSEVSK | <i>Gallus gallus</i> | 19 | 2225.2096 | 61.102 | 1 |
| | | RHPEFSIQLIMR | <i>Gallus gallus</i> | 12 | 1525.8188 | 171.49 | 2 |
| | | SFEAGHDAFMAEFVYEYSR | <i>Gallus gallus</i> | 19 | 2254.963 | 67.43 | 2 |
| | | TNCDLLHDHGEADFLK | <i>Gallus gallus</i> | 16 | 1883.8472 | 180.84 | 6 |
| | Serum albumin (P85295, P14639) | FNDLGEENFQGLVLIQAFSQYLQQCPFDEHVK | <i>Capra hircus, Ovis aries</i> | 31 | 3684.7559 | 111.55 | 2 |
| | | HLVDEPQNLIKK | <i>Capra hircus, Ovis aries</i> | 12 | 1432.8038 | 164.04 | 2 |
| | | TCVADESHAGCDK | <i>Capra hircus, Ovis aries</i> | 13 | 1448.566 | 218.15 | 1 |
| | | VATLRETYGDMADCCEK | <i>Capra hircus, Ovis aries</i> | 17 | 2017.8543 | 105.53 | 3 |

| | | | | | | | |
|--|---------------------------------------|---|---|-----------|-----------|--------|---|
| | DVFLGSFLYEYSR | <i>Capra hircus,</i> <i>Ovis aries</i> | 13 | 1594.7668 | 244.01 | 4 | |
| | HGEYGFQNALIVR | <i>Capra hircus,</i> <i>Ovis aries</i> | 13 | 1502.763 | 152.7 | 8 | |
| Hemoglobin subunit alpha-D (P02001) | AASHQEEFGAEALTR | <i>Gallus gallus</i> | 15 | 1615.759 | 113.65 | 2 | |
| | NVDNLSQAMAELSNLHAYNLR | <i>Gallus gallus</i> | 21 | 2372.1543 | 111.58 | 8 | |
| Hemoglobin subunit beta-A (P02077) | HHGSEFTPLLQAEFQK | <i>Capra hircus</i> | 16 | 1867.9217 | 194.3 | 15 | |
| Hemoglobin subunit alpha-A (P01994) | IAGHAEEYGAETLER | <i>Gallus gallus,</i> <i>(Meleagris gallopavo)</i> | 15 | 1644.7744 | 224.66 | 21 | |
| Hemoglobin subunit beta-C (P02078) | FFEHFGLSSADAVLGNK | <i>Capra hircus</i> | 19 | 2023.964 | 175.15 | 15 | |
| Hemoglobin subunit alpha-1/2 (XP_017895579, P68240) | LLSHSLLVTLACHLPNDFTPAVHASLDK | <i>Capra hircus,</i> <i>Ovis aries</i> | 28 | 3068.6117 | 152.28 | 12 | |
| Ovotransferrin (P02789) | HTTVNENAPDQK | <i>Gallus gallus</i> | 12 | 1352.6321 | 128.91 | 1 | |
| Apolipoprotein A-1 (P08250) | LISFLDELQK | <i>Gallus gallus</i> | 10 | 1204.6703 | 214.96 | 4 | |
| | NRLISFLDELQK | <i>Gallus gallus</i> | 12 | 1474.8144 | 164.33 | 3 | |
| Carbonic anhydrase 2 (XP_017913668, P00922) | AVVPDPALKPLALLYEQAASR | <i>Capra hircus,</i> <i>Ovis aries</i> | 21 | 2221.2471 | 109.77 | 3 | |
| Histone H5 (P02259) | SASHPTYSEMIAAAIR | <i>Gallus gallus,</i> <i>(Meleagris gallopavo)</i> | 16 | 1703.8301 | 158.06 | 7 | |
| S3 | Serum albumin (P85295, P14639) | ADFTDVTK | <i>Capra hircus,</i> <i>Ovis aries</i> | 8 | 895.42871 | 141.39 | 3 |
| | | ADFTDVTKIVTDLTK | <i>Capra hircus,</i> | 15 | 1665.8825 | 225.79 | 3 |

| | | | | | | |
|--|---------------------------------|---|----|-----------|--------|----|
| | | <i>Ovis aries</i> | | | | |
| | EDPHACYATVFDK | <i>Capra hircus,</i> <i>Ovis aries</i> | 13 | 1551.6664 | 125.97 | 1 |
| | EDPHACYATVFDKLK | <i>Capra hircus,</i> <i>Ovis aries</i> | 15 | 1792.8454 | 216.84 | 3 |
| | DVFLGSFLYEYSR | <i>Capra hircus,</i> <i>Ovis aries</i> | 13 | 1594.7668 | 257.92 | 31 |
| | FNDLGEENFQGLVLIAFSQYLQQCPFDEHVK | <i>Capra hircus,</i> <i>Ovis aries</i> | 31 | 3684.7559 | 177.38 | 19 |
| | TCVADESHAGCDK | <i>Capra hircus,</i> <i>Ovis aries</i> | 13 | 1448.566 | 233.13 | 1 |
| | VATLRETYGDMADCCEK | <i>Capra hircus,</i> <i>Ovis aries</i> | 17 | 2017.8543 | 233.52 | 10 |
| | KAPQVSTPTLVEISR | <i>Capra hircus,</i> <i>Ovis aries</i> | 15 | 1624.9148 | 185.57 | 12 |
| | KAPQVSTPTLVEISRSLGK | <i>Capra hircus,</i> <i>Ovis aries</i> | 19 | 2010.1473 | 112.74 | 3 |
| | LKPEPDTLCAEFK | <i>Capra hircus,</i> <i>Ovis aries</i> | 13 | 1546.7701 | 135.99 | 1 |
| | LKPEPDTLCAEFKADEK | <i>Capra hircus,</i> <i>Ovis aries</i> | 17 | 1989.9717 | 167.03 | 2 |
| | LVKELTEFAK | <i>Capra hircus,</i> <i>Ovis aries</i> | 10 | 1176.6754 | 162.64 | 3 |
| | VGTKCCAKPESER | <i>Capra hircus,</i> <i>Ovis aries</i> | 13 | 1520.7075 | 158.42 | 2 |
| | YTRKAPQVSTPTLVEISR | <i>Capra hircus,</i> <i>Ovis aries</i> | 18 | 2045.1269 | 112.82 | 1 |
| Hemoglobin subunit beta-A (P02077) | HHGSEFTPLLQAEFQK | <i>Capra hircus</i> | 16 | 1867.9217 | 312.95 | 20 |
| Hemoglobin subunit alpha-1/2 (XP_017895579, P68240) | LLSHSLLVTLACHLPNDFTPAVHASLDK | <i>Capra hircus,</i> <i>Ovis aries</i> | 28 | 3068.6117 | 207.11 | 28 |

| | | | | | | |
|--|--------------------------------|--|----|-----------|--------|----|
| Serum albumin (P19121) | KMPQVPTDLLLETGK | <i>Gallus gallus</i> | 15 | 1668.912 | 148.62 | 1 |
| | KMPQVPTDLLLETGKK | <i>Gallus gallus</i> | 16 | 1797.007 | 136.26 | 4 |
| | QLIYLSQKYPK | <i>Gallus gallus</i> | 11 | 1379.7813 | 198.72 | 2 |
| | RHPEFSIQLIMR | <i>Gallus gallus</i> | 12 | 1525.8188 | 177.83 | 4 |
| | TNCDLLHDHGAEADFLK | <i>Gallus gallus</i> | 16 | 1883.8472 | 187.74 | 1 |
| Hemoglobin subunit beta-C (P02078) | FFEHFGDLSSADAVLGNNAK | <i>Capra hircus</i> | 19 | 2023.964 | 309.49 | 35 |
| | FFEHFGDLSSADAVLGNNAKVK | <i>Capra hircus</i> | 21 | 2251.1273 | 224.36 | 3 |
| | LLVVYPWTQRFFEHFGDLSSADAVLGNNAK | <i>Capra hircus</i> | 29 | 3279.6717 | 133.47 | 10 |
| Carbonic anhydrase 2 (XP_017913668, P00922) | AVVDPALKPLALLYEQAASR | <i>Capra hircus,</i> <i>Ovis aries</i> | 21 | 2221.2471 | 144.33 | 5 |
| Hemoglobin subunit alpha-D (P02001) | NVDNLSQAMAELSNLHAYNLR | <i>Gallus gallus</i> | 21 | 2372.1543 | 245.39 | 4 |
| | NVDNLSQAMAELSNLHAYNLRVDPVNFK | <i>Gallus gallus</i> | 28 | 3171.5771 | 109.68 | 1 |
| Hemoglobin subunit beta (P60524) | FFDSFGDLSTPDAVMSNAK | <i>Canis lupus familiaris,</i> <i>(Canis lupus laniger)</i> | 19 | 2047.9197 | 234.22 | 6 |
| Haptoglobin (XP_005692259, XP_004015160) | APEIANGHVEYSVR | <i>Capra hircus,</i> <i>Ovis aries,</i> <i>(Rubicapra rubicapra,</i> <i>Capra ibex)</i> | 14 | 1540.7634 | 171.62 | 3 |
| Transthyretin (P12303) | TSDSGELHGLTTEDK | <i>Ovis aries</i> | 15 | 1588.7217 | 216.84 | 1 |
| | TSDSGELHGLTTEDKFVEGLYK | <i>Ovis aries</i> | 22 | 2425.1649 | 144.82 | 1 |
| Hemoglobin subunit alpha-A (P01994) | KVVAALIEAANHIDDIAGTLSK | <i>Gallus gallus,</i> <i>(Meleagris gallopavo,</i> <i>Bambusicola thoracicus,</i> <i>Francolinus pondicerianus)</i> | 22 | 2248.2427 | 245.67 | 16 |

| | | | | | | |
|--|---------------------------------|---|----|-----------|--------|----|
| | VVAALIEAANHIDDIAGTLSK |) <i>Gallus gallus,</i> <i>(Meleagris</i> <i>gallopavo,</i> <i>Bambusicola</i> <i>thoracicus,</i> <i>Francolinus</i> <i>pondicerianus</i>) | 21 | 2120.1477 | 295.22 | 17 |
| Antithrombin-III (XP_005690953, NP_001009393) | VTFQANRPFLVLIR | <i>Capra hircus,</i> <i>Ovis aries</i> | 14 | 1672.9777 | 132.5 | 1 |
| Serotransferrin (P09571) | SSGPDLNWNNLK | <i>Sus scrofa</i> | 12 | 1343.647 | 185.81 | 2 |
| | SSGPDLNWNNLK GK | <i>Sus scrofa</i> | 14 | 1528.7634 | 166.29 | 2 |
| Hemoglobin subunit alpha (P60529) | IGGHAGDYGG EALDR | <i>Canis lupus</i> <i>familiaris,</i> <i>(Vulpes</i> <i>vulpes,</i> <i>Chrysocyon</i> <i>brachyurus)</i> | 15 | 1486.6801 | 174.23 | 1 |
| | VADALTTAV AHLDDLPGALSALS DLHAYK | <i>Canis lupus</i> <i>familiaris,</i> <i>(Vulpes</i> <i>vulpes,</i> <i>Chrysocyon</i> <i>brachyurus)</i> | 29 | 2947.5291 | 151.18 | 3 |
| Hemoglobin subunit alpha-1 (P0CH26) | LLSHSLLVTLACHHPSDFTPAVHASL DK | <i>Capra hircus</i> | 28 | 3065.5757 | 180.9 | 8 |
| | VGSNAGAYGAEALER | <i>Capra hircus</i> | 15 | 1463.7005 | 277.82 | 11 |
| Alpha-2-HS- glycoprotein (XP_005675218, P29701) | HTFSGVASVESASGEAFHVGK | <i>Capra hircus,</i> <i>Ovis aries,</i> <i>(Bubalus</i> <i>bubalis)</i> | 21 | 2103.0021 | 186.98 | 2 |

Yoruba female figure

S3

| | | | | | | |
|--|-----------------------------|---|----|-----------|--------|-----|
| Serum albumin (P19121) | CVANEDAPECSKPLPSIILDEICQVEK | <i>Gallus gallus</i> | 27 | 3113.4719 | 152.96 | 13 |
| | FVHDSIGVHK | <i>Gallus gallus</i> | 10 | 1137.5931 | 118.74 | 1 |
| | KMPQVPTDLLLETGK | <i>Gallus gallus</i> | 15 | 1668.912 | 149.69 | 4 |
| | KMPQVPTDLLLETGKK | <i>Gallus gallus</i> | 16 | 1797.007 | 112.34 | 4 |
| | MMSNLCSQQDVFSGK | <i>Gallus gallus</i> | 15 | 1730.7426 | 267.37 | 16 |
| | QLIYLSQKYPK | <i>Gallus gallus</i> | 11 | 1379.7813 | 172.98 | 8 |
| | RHPEFSIQLIMR | <i>Gallus gallus</i> | 12 | 1525.8188 | 150.51 | 2 |
| | TNCDLLHDHGEADFLK | <i>Gallus gallus</i> | 16 | 1883.8472 | 141.59 | 2 |
| Apolipoprotein A (P08250) | LISFLDELQK | <i>Gallus gallus</i> | 10 | 1204.6703 | 182.76 | 5 |
| | NRLISFLDELQK | <i>Gallus gallus</i> | 12 | 1474.8144 | 173.64 | 3 |
| | VMEQLSNLR | <i>Gallus gallus</i> | 9 | 1088.5648 | 93.111 | 1 |
| Hemoglobin subunit alpha-D (P02001) | LLSQCIQVVLAVHMGK | <i>Gallus gallus</i> | 16 | 1794.9848 | 79.614 | 1 |
| | NVDNLSQAMAELSNLHAYNLR | <i>Gallus gallus</i> | 21 | 2372.1543 | 142.35 | 11 |
| Ovotransferrin (P02789) | GAIEWEGIESGSVEQAVAK | <i>Gallus gallus</i> | 19 | 1958.9585 | 283.21 | 6 |
| | VAAHAVVARDDNK | <i>Gallus gallus</i> | 13 | 1364.7161 | 138.22 | 1 |
| Hemoglobin subunit alpha-A (P01994) | IAGHAEEYGAETLER | (<i>Gallus gallus</i> , <i>Meleagris gallopavo</i>) | 15 | 1644.7744 | 227.48 | 206 |
| Fibrinogen beta chain (Q02020) | GGETSEMYIIQPDPFTTPYR | <i>Gallus gallus</i> | 20 | 2301.0623 | 203.27 | 10 |
| Carbonic anhydrase 2 (P07630, XP_021243182) | YDPALKPLSFSYDAGTAK | <i>Gallus gallus</i> , <i>Numida meleagris</i> , (<i>Coturnix japonica</i> , <i>Phasianus colchicus</i> , <i>Meleagris gallopavo</i>) | 18 | 1942.9676 | 150.12 | 2 |

| | | | | | | |
|--|------------------------------|--|----|-----------|--------|----|
| Histone H1 (P08288, XP_021272941, XP_014819709) | AETAPAAAPAAAPAPAAK | <i>Gallus gallus, Numida meleagris, Calidris pugnax, (Coturnix japonica)</i> | 18 | 1545.8151 | 206.1 | 2 |
| Fibrinogen alpha chain (P14448) | ILENMHESCK | <i>Gallus gallus</i> | 11 | 1346.5959 | 143.5 | 4 |
| | LLPDLESFFTHDSVSTSSR | <i>Gallus gallus</i> | 19 | 2137.0328 | 172.58 | 4 |
| | MQGIIDDTDQNYSQLR | <i>Gallus gallus</i> | 15 | 1782.7843 | 286.34 | 6 |
| Ig lambda chain C region (P20763) | VTHNGTSITK | <i>Gallus gallus, (Phasianus colchicus)</i> | 10 | 1056.5564 | 174.02 | 6 |
| | ATLVCLINDFYSPVTVDWVIDGSTR | <i>Gallus gallus, (Phasianus colchicus)</i> | 26 | 2937.4582 | 133.17 | 12 |
| | QSNSQYMASSYLSSLASDWSSHETYTCR | <i>Gallus gallus, (Phasianus colchicus)</i> | 28 | 3245.3666 | 141.36 | 13 |
| Histone H5 (P02259) | RSASHPTYSEMIAAAIR | <i>Gallus gallus, (Meleagris gallopavo)</i> | 17 | 1859.9312 | 123.76 | 5 |
| Lamin A (P13648) | GGGPSGTPLSPTR | <i>Gallus gallus, (Phasianus colchicus)</i> | 13 | 1182.5993 | 131.82 | 2 |
| Lysozyme G (P27042) | MDIGTLHDDYSNDVVAR | <i>Gallus gallus</i> | 17 | 1919.8683 | 103.6 | 1 |
| Myeloid protein (P08940) | HWAQICSGNPFNR | <i>Gallus gallus</i> | 13 | 1585.7208 | 150.15 | 2 |
| Ovoinhibitor (P10184, XP_021266329) | ILSPVCGTDGFTYDNECGICAHNAEQR | <i>Gallus gallus, Numida meleagris, (Meleagris gallopavo, Phasianus</i> | 27 | 3083.3172 | 107.56 | 2 |

| | | | | | | | |
|-----------|--|-----------------|---|----|-----------|--------|---|
| | | | <i>colchicus)</i> | | | | |
| S4 | Hemoglobin subunit alpha-A (P01994) | IAGHAEEYGAETLER | <i>Gallus gallus, (Meleagris gallopavo)</i> | 15 | 1644.7744 | 213.84 | 8 |
| | Protein S100-A7 (P31151) | GTNYLADVFEK | <i>Homo sapiens</i> | 11 | 1255.6085 | 170.89 | 1 |
| | | KGTYLADVFEK | <i>Homo sapiens</i> | 12 | 1383.7034 | 139.32 | 3 |

Supplementary Figure S1

Multiple sequence alignment of hemoglobin subunit alpha from *Gallus gallus* (P02001 and P01994), *Capra hircus* (P0CH26) and *Canis lupus familiaris* (P60529) (A), and hemoglobin subunit beta from *Capra hircus* (P02077 and P02078) and *Canis lupus familiaris* (P60524) (B), identified in sample S3 from the Bamana boli. The unique peptides, confidently identified for each species and reported in the Supplementary Table S2, are highlighted in yellow. Alignment was made using the Uniprot align tool.

(A)

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SP|P02001|HBAD_CHICK -MLTAEDKKLIQQAWEKAASHQEEFGAEALTRMFTTYPQTKTYFPHPFDLSPGSDQVRGHG 59
SP|P01994|HBA_CHICK  MVLSAADKNNVKGIFTKIAGHAE EYGAETLERMFTTYPPTKTYFPHPFDLSHGSAQIKGHG 60
SP|P0CH26|HBA2_CAPHI  MVLSAADKSNVKAAWGKVGSNAGAYGAEALERMFLSFPTTKTYFPHPFDLSHGSAQVKGHG 60
SP|P60529|HBA_CANLF   -VLSPADKTNIKSTWDKIGGHAGDYGGEALDRTFQSFPTTKTYFPHPFDLSPGSAQVKAHG 59
      *:  ** .  ::  : *  ..:  :*.:* * * *  ::*  *****  ** *::.*

SP|P02001|HBAD_CHICK  KKVVLGALGNAVKNVDNLSQAMAELSNLHAYNLRVDPVNFKLLSQCIQVVLAVHMGKDYTP 119
SP|P01994|HBA_CHICK   KKVVAALIEAANHIDDIAGTLSKLSDLHAHKLRVDPVNFKLLGQCFLVVVAIHHPAALTP 120
SP|P0CH26|HBA2_CAPHI  EKVAAALTKAVGHLDDLPGTLSDLSDLHAHKLRVDPVNFKLLSHSLLVTLACHHPSDFTP 120
SP|P60529|HBA_CANLF   KKVADALTTAVAHLDLPGALSALSDLHAYKLRVDPVNFKLLSHCLLVTLACHHPTEFTP 119
      **:  ** * .  ::*:  :::  **:***:*****.:.:  *.:* *  **

SP|P02001|HBAD_CHICK  EVHAAFDFKFLSAVSAVLAEKYR 141
SP|P01994|HBA_CHICK   EVHASLDKFLCAVGTVLTAKYR 142
SP|P0CH26|HBA2_CAPHI  AVHASLDKFLANVSTVLTSKYR 142
SP|P60529|HBA_CANLF   AVHASLDKFFAAVSTVLTSKYR 141
      ***:***:  *.:**  ***

(B)
SP|P02077|HBBA_CAPHI -MLTAEKAAVTGFWGKVKVDEVGAEALGRLLVVYPWTQRFFEHFGLSSADAVMNNAKV 59
SP|P02078|HBBC_CAPHI ---MPNKALITGFWSKVKVDEVGAEALGRLLVVYPWTQRFFEHFGLSSADAVLGNNAKV 56
SP|P60524|HBB_CANLF  VHLTAEKSLVSGLWGWVNVDEVGAEALGRLLIVYPWTQRFFDSFGDLSTPDAVMSNAKV 60
      *:  ::*:*.*:*****.*****:*****:  *****:  ***:  ****

SP|P02077|HBBA_CAPHI  KAHGKKVLDSFSNGMKHLDDLKGTFAQLSELHCDKLHVDPENFKLLGNVLVVVLARHHGS 119
SP|P02078|HBBC_CAPHI  KAHGKKVLDSFSNGVQHDDLKGTFAELSELHCDKLHVDPENFRLLGNVLVIVLARHFGK 116
SP|P60524|HBB_CANLF   KAHGKKVLNSFSDGLKNLDNLKGTFAKLSELHCDKLHVDPENFKLLGNVLVCVLAHHFGK 120
      *****:***:*.:::***:*****:*****:*****:*****  ***:*.

SP|P02077|HBBA_CAPHI  EFTPLLQAEFQKVVAGVANALAHRYH 145
SP|P02078|HBBC_CAPHI  EFTPELQAEFQKVVAGVASALAHRYH 142
SP|P60524|HBB_CANLF   EFTPQVQAAYQKVVAGVANALAHKYH 146
      ****  :**  :*****.*****:**

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