

Supplemental Table 2. Database Search Results of spectra acquired on the prOTOF MALDI O-TOF Mass Spectrometry using TOFworks™, an integrated workflow-based software platform. Monoisotopic peptide peak lists were generated in the mass range *m/z* 500–5000, with a signal to noise ratio threshold of 3.0, and peak resolution threshold of 10,000 using peak picking algorithm of the TOFworks software version 1.0.1.797. Trypsin autolysis fragment peaks and peaks from the matrix were not excluded unless and otherwise stated. The resulting peptide mass lists were used to search the sequences present in an indexed rat subset database (36,274 sequences), created from NCBIInr 3,893,302 sequences (release 07/04/06) and stored locally, by running ProFound™ search engine V 2003.6.2.1 (Genomic Solutions, Ann Arbor, MI). The searching criteria used were (1) Protein molecular weight search window of 10 to 300 KDa; (2) protein expectation P<0.001; (3) minimum sequence coverage of 10%; (4) peptide mass tolerance limits of 30 parts per million (ppm); (5) complete cysteine modification by iodoacetamide (57 Da) and partial methionine oxidation (M)(16 Da). A positive identification was accepted when a minimum of 6 peptide masses matched a particular protein with a mass error tolerance of ≤ 30 ppm, and sequence coverage ≥ 10%, and low expectation value (P < 0.001).

| Pos. | Gene name | Accession number | Expect. | % seq. cove. | No. matched peak | No. unmatched peak | MALDI-TOF MS | | | |
|------|-------------|------------------|----------|--------------|------------------|--------------------|-----------------------|-------------------|------------------|--------------------------|
| | | | | | | | Measured mass (M + H) | Match error (ppm) | Peptide Sequence | |
| 8 | <i>apoE</i> | P02650 | 1.30E-07 | 36 | 17 | 10 | 899.431 | -2 | FWDYLR | 1 Oxidation (M) |
| | | | | | | | 968.542 | -2 | LGPLVEQGR | |
| | | | | | | | 1019.477 | 2 | LGADMEDLR | |
| | | | | | | | 1035.470 | 0 | LGADM#EDLR | |
| | | | | | | | 1075.583 | 1 | LQAEIFQAR | |
| | | | | | | | 1162.546 | 2 | MEEQTQQIR | |
| | | | | | | | 1178.541 | 2 | M#EEQTQQIR | |
| | | | | | | | 1228.633 | 2 | GRLEEVGNQAR | |
| | | | | | | | 1239.674 | 2 | TANLGAGAAQPLR | |
| | | | | | | | 1377.672 | 1 | SKMEEQTQQIR | |
| | | | | | | | 1393.666 | 0 | SKM#EEQTQQIR | 1 Oxidation (M) |
| | | | | | | | 1510.803 | 2 | TANLGAGAAQPLRDR | |
| | | | | | | | 1599.780 | 1 | ELEEQLGPVAEETR | |
| | | | | | | | 1720.812 | 2 | NEVNTMLGQSTEELR | |
| | | | | | | | 1736.806 | 1 | NEVNTM#LGQSTEELR | 1 Oxidation (M) |
| | | | | | | | 1817.876 | 2 | DRLEEVREQMEEVR | |
| | | | | | | | 1833.873 | 3 | DRLEEVREQM#EEVR | |
| | | | | | | | 955.420 | -10 | HGEQWNK | |
| 9 | <i>Bpgm</i> | Q6P6G4 | 5.00E-05 | 42 | | | 1068.461 | -7 | FC*SWVDQK | Carbamidomethylation (C) |
| | | | | | | | 1103.518 | -6 | LNSDGLEEAR | |
| | | | | | | | 1113.599 | -9 | HYGALIGLNR | |

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|----|------------|----------------|-----------|----|----|----|---|--|--|--|
| 27 | <i>Fgg</i> | P02680 | 1.911E-04 | 30 | 12 | 22 | 1492.690 1717.689 1733.690 1767.805 | -3 -6 -3 -11 | GLIDEANQDFTNR MADEAASEAHQEGLTR M#ADEAASEAHQEGLTR M#KGLIDEANQDFTNR | 1 Oxidation (M) 1 Oxidation (M) |
| 27 | <i>Fgg</i> | P02680 | 1.911E-04 | 30 | 12 | 22 | 759.430 1050.506 1162.506 1178.503 1244.599 1531.796 1551.715 1567.714 2207.029 2545.256 2561.256 2891.206 | -18 -8 -5 -3 -7 -5 -6 -4 -1 -4 -1 0 | IIPFNR VGPESDKYR TSTADYAMFR TSTADYAM#FR YLQDIYTSNK YEALLLTHESSIR LSIGDGQQHHMGGSK LSIGDGQQHHM#GGSK EGFGHLSPTGTTEFWLGNEK AIQVYYNPDQPPKPGMIEGATQK AIQVYYNPDQPPKPGM#IEGATQK LTYAYFIGGDAGDAFDGYDFGDDPS DK | 1 Oxidation (M) 1 Oxidation (M) 1 Oxidation (M) |
| 30 | <i>Gda</i> | gi 753304 2 | 3.07E-08 | 28 | 12 | 5 | 998.487 | 1 | FLYLGDDR | |
| 30 | <i>Gda</i> | gi 753304 2 | 3.07E-08 | 28 | 12 | 5 | 1058.623 1107.556 1371.752 1436.717 1544.717 1700.820 1814.885 2087.043 2147.107 2511.248 | -5 -4 1 -1 1 2 1 3 1 4 | TPQLALIFR NIEEVYVGGK LATLGGSQLGLDR IVFLEESSQQEK FQSTDVAEEVYTR RFQSTDVAEEVYTR NYTDVYDKNNLLTNK FLYLGDDRNIIEEVYVGGK EIGNFEVGKDFDALLINPR THDLYIQSHISENREEIEAVK | |
| 34 | <i>Hbb</i> | P02091 | 6.16E-07 | 84 | 14 | 14 | 912.466 1090.584 1122.656 1126.558 1218.676 1274.716 1298.625 1383.626 1514.697 | -5 3 1 2 0 -2 -1 -2 -1 | VHLTDAEK VINAFNDGLK VVAGVASALAHK LHVDPENFR KVINAFFNDGLK LLVVYPWTQR VNPDDVGGEALGR EFSPC*AQAAFQK GTFAHLSELHC*DK | Carbamidomethy lation (C) Carbamidomethy lation (C) |

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|----|-------------|--------|----------|----|----|----|--|----------|-----|-------------------------|--------------------------|
| | | | | | | | | 1714.013 | 1 | LLGNMIVVLGHHLGK | |
| | | | | | | | | 1730.008 | 1 | LLGNM#IVIVLGHHLGK | 1 Oxidation (M) |
| | | | | | | | | 2006.906 | -1 | YFDSDLSSASAIMGNPK | |
| | | | | | | | | 2022.904 | 1 | YFDSDLSSASAIM#GNPK | 1 Oxidation (M) |
| | | | | | | | | 2622.242 | 0 | GTFAHLSELHC*DKLHVDPENFR | |
| 37 | <i>Hpx</i> | P20059 | 4.72E-10 | 26 | 14 | 8 | | 734.383 | 10 | YPLDAR | |
| | | | | | | | | 746.398 | 1 | ELISER | |
| | | | | | | | | 793.396 | 5 | GEFVWR | |
| | | | | | | | | 795.428 | 0 | LYVTSGR | |
| | | | | | | | | 1079.454 | 0 | YYC*FQGNK | Carbamidomethylation (C) |
| | | | | | | | | 1105.553 | -3 | GGNNLVSGYPK | |
| | | | | | | | | 1114.485 | -5 | DYFISC*PGR | Carbamidomethylation (C) |
| | | | | | | | | 1128.504 | -13 | WFWDFATR | |
| | | | | | | | | 1145.608 | -17 | VWVYPPEKK | |
| | | | | | | | | 1212.625 | -3 | FNPVTGEVPPR | |
| | | | | | | | | 1347.693 | -11 | GPDSVFLIKEDK | |
| | | | | | | | | 1502.665 | -5 | GATYAFSGSHYWR | |
| | | | | | | | | 1517.767 | -16 | EDKVWVYPPEKK | |
| | | | | | | | | 1727.768 | -2 | GEC*QSEGVLFFQGNR | Carbamidomethylation (C) |
| 41 | <i>Lmna</i> | P48679 | 1.43E-05 | 17 | 11 | 8 | | 919.425 | -5 | SSFSQHAR | |
| | | | | | | | | 974.468 | -3 | LLEGEER | |
| | | | | | | | | 1023.499 | -4 | NIYSEELR | |
| | | | | | | | | 1089.546 | 0 | SLETENAGLR | |
| | | | | | | | | 1165.539 | -2 | AAYEAELGDAR | |
| | | | | | | | | 1187.629 | -1 | LRDLEDSSLAR | |
| | | | | | | | | 1293.631 | -3 | AAYEAELGDARK | |
| | | | | | | | | 1502.713 | -1 | AQHEDQVEQYKK | |
| | | | | | | | | 1605.799 | -1 | LAAEKEREMAEKR | |
| | | | | | | | | 1629.797 | -2 | LQEKEDLQELNDR | |
| | | | | | | | | 1752.853 | -1 | NSNLVGAHEELQQSR | |
| 49 | <i>Pzp</i> | Q63041 | 1.05E-04 | 12 | 13 | 18 | | 858.422 | -7 | YGAATFTK | |
| | | | | | | | | 870.526 | -8 | LLLQEVR | |
| | | | | | | | | 1101.55 | -2 | LQDQSNIQR | |
| | | | | | | | | 1160.620 | -3 | VNTLPLNFDR | |
| | | | | | | | | 1204.647 | -2 | LADLPGNYITK | |
| | | | | | | | | 1229.649 | -2 | KLQDQSNIQR | |
| | | | | | | | | 1404.777 | -5 | M#VSGFIPVKPSVK | 1 Oxidation (M) |

| lation (C) | | | | | | | |
|------------|----|--------|----------|----------|----|------------------|--------------------------|
| 56 | Tf | P12346 | 1.72E-09 | 22 | 15 | 12 | |
| | | | | 915.466 | 5 | VAQEHFGK | |
| | | | | 949.557 | 7 | IPSHAVVAR | |
| | | | | 1186.549 | 13 | WC*ALSHQER | Carbamidomethylation (C) |
| | | | | 1348.675 | -1 | GTDFQLNQLQGK | |
| | | | | 1348.675 | 25 | ASDSSINWNNLK | |
| | | | | 1359.605 | 13 | WC*AVSEHENRK | Carbamidomethylation (C) |
| | | | | 1392.762 | 4 | LYLGHSYVTAIR | |
| | | | | 1423.757 | 5 | SKDFQLFGSPLGK | |
| | | | | 1476.784 | 8 | KGTDFQLNQLQGK | |
| | | | | 1476.784 | 8 | GTDFQLNQLQGKK | |
| | | | | 1558.748 | 9 | EGVC*PEASIDSAPVK | Carbamidomethylation (C) |
| | | | | 1589.700 | 16 | GDKDC*TGNFC*LFR | Carbamidomethylation (C) |
| | | | | 1652.724 | 16 | FDEFFSQGC*APGYK | Carbamidomethylation (C) |
| | | | | 1656.780 | 12 | KPVDQYEDC*YLAR | |
| | | | | 1881.887 | 10 | ADRDQYELLC*LDNTR | Carbamidomethylation (C) |

