

Supplementary data 2 : Proteins found only in dogs

| Protein name | Accession number | ID Score | Peptide | DOG | HUMAN |
|---|-------------------------|-----------------|---------------------|------------|--------------|
| hCG2036717 [Homo sapiens] | gi 119571781 | 15.28 | KDNKHLLM | 3.55149 | 0 |
| protein FAM110A [Homo sapiens] | gi 46391104 | 11.34 | GPADGGARKPSAVER | 3.615547 | 0 |
| unnamed protein product [Homo sapiens] | gi 32458 | 11.2 | YDGLVGMFDPQR | 3.743165 | 0 |
| armadillo repeat-containing protein 2 isoform X2 [Homo sapiens] | gi 578812995 | 4.3699999 | IILALK | 3.775933 | 0 |
| DNA damage-induced apoptosis suppressor protein [Homo sapiens] | gi 194239694 | 11.35 | IILVSK | 3.916139 | 0 |
| coronin 6, isoform CRA_d [Homo sapiens] | gi 119571592 | 1.48 | GGAHK | 4.111305 | 0 |
| alternative protein ZNF644 [Homo sapiens] | gi 440576095 | 12.25 | KSLMPR | 4.173955 | 0 |
| collagen alpha-1(I) chain-like [Canis lupus familiaris] | gi 545489812 | 8.96 | GAGGTAGQQR | 4.479076 | 0 |
| histone H2A type 2-A [Homo sapiens] | gi 106775678 | 14.9 | VTIAQGGVLPNIQAVLLPK | 4.701959 | 0 |
| calcineurin-binding protein cabin-1 isoform X11 [Homo sapiens] | gi 578837053 | 10.56 | VSSMLQRTPDQGKK | 4.702742 | 0 |
| hCG2007771 [Homo sapiens] | gi 119630298 | 16.77 | LGIGGIGRRLWR | 4.79344 | 0 |
| E3 ubiquitin-protein ligase XIAP isoform X1 [Homo sapiens] | gi 578838669 | 12.7 | MTFNSFEGSK | 5.164847 | 0 |
| PHD finger protein 3 isoform X1 [Homo sapiens] | gi 578812606 | 24.07 | QNMTTDAPKKIVAANK | 5.181479 | 0 |
| bioorientation of chromosomes in cell division protein 1-like 1 isoform X2 [Homo sapiens] | gi 578808374 | 4.0599999 | KREVSPPGARTR | 5.204606 | 0 |
| intracellular hyaluronan-binding protein 4 isoform X1 [Homo sapiens] | gi 530390749 | 3.6700001 | AVVIHK | 5.226727 | 0 |
| tRNA methyltransferase 10 homolog B isoform X8 [Homo sapiens] | gi 578816380 | 19.43 | HWEKIVAANK | 5.271495 | 0 |
| protein-methionine sulfoxide oxidase MICAL3 isoform X15 [Homo sapiens] | gi 578836826 | 18.43 | AQIIQR | 5.338539 | 0 |
| unnamed protein product, partial [Homo sapiens] | gi 40042734 | 8.6499996 | GPAGXGK | 5.424545 | 0 |
| unnamed protein product, partial [Homo sapiens] | gi 218347496 | 4.9699998 | TCGPRSMMAAR | 5.492964 | 0 |
| nibrin isoform X2 [Homo sapiens] | gi 530389034 | 12.12 | KLSSAVVFGGGEAR | 5.51483 | 0 |
| suppressin [Homo sapiens] | gi 3293442 | 7.5100002 | IHADAKR | 5.585447 | 0 |
| hCG2007967, partial [Homo sapiens] | gi 119593232 | 25.8099999 | MRSQNAALSGSGPR | 5.587793 | 0 |
| dedicator of cytokinesis protein 10 isoform X10 [Homo sapiens] | gi 578804561 | 5.8099999 | ANHSVAR | 5.58928 | 0 |
| Ig H-chain, partial [Homo sapiens] | gi 185315 | 17.42 | GITGTT | 5.635132 | 0 |
| truncated ganglioside differentiation associated protein 1 [Homo sapiens] | gi 320461577 | 9.7799997 | QGRRGG | 5.849613 | 0 |
| zinc finger protein 14 homolog isoform X1 [Homo sapiens] | gi 530416944 | 25 | EPGMVVR | 5.894667 | 0 |
| A Chain A, Dbl And Pleckstrin Homology Domains From Hsos1 | gi 6729800 | 12.6 | KXNEIQK | 5.926031 | 0 |
| transcription elongation factor A protein-like 5 [Canis lupus familiaris] | gi 545558799 | 8.6199999 | KQKMGGFHWMPR | 6.117252 | 0 |
| CCR4-NOT transcription complex subunit 3-like [Homo sapiens] | gi 530436103 | 10.79 | APDARLALGSAR | 6.231001 | 0 |
| gap junction delta-4 protein [Homo sapiens] | gi 145699105 | 7.4899998 | GSGSEEQPSAAPS | 6.403089 | 0 |
| ubiquitously transcribed tetratricopeptide repeat protein Y-linked transcript variant 13 [Homo sapiens] | gi 148733150 | 13.5 | CYXNAAR | 6.444706 | 0 |
| polymerase delta-interacting protein 2 isoform 1 [Homo sapiens] | gi 7661672 | 7.0900002 | GRGVVGREPVLSK | 6.749978 | 0 |

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| mitochondrial 10-formyltetrahydrofolate dehydrogenase precursor [Homo sapiens] | gi 238814322 | 10.35 | EESFGPIMVISK | 6.758795 | 0 |
| hypothetical protein FLJ37396, isoform CRA_a [Homo sapiens] | gi 119568743 | 16.620001 | NKNMKDDDL SMK | 6.767944 | 0 |
| non-histone chromosomal protein HMG-17-like [Canis lupus familiaris] | gi 545520510 | 12.92 | QIRHRK LK | 6.783366 | 0 |
| PHD finger protein 10 isoform b [Homo sapiens] | gi 194328736 | 13.98 | RDLSHK | 6.918173 | 0 |
| unnamed protein product, partial [Homo sapiens] | gi 40039260 | 14.42 | VVYGS R | 6.95277 | 0 |
| cyclin-dependent kinase inhibitor 1 [Canis lupus familiaris] | gi 545518904 | 8.1700001 | GGRDDLGGGK | 7.006785 | 0 |
| zinc finger protein 598 [Homo sapiens] | gi 409264581 | 10.51 | CSTKMR | 7.007197 | 0 |
| dexamethasone-induced Ras-related protein 1 isoform X1 [Canis lupus familiaris] | gi 73956260 | 12.37 | EKASGGGQAK | 7.030478 | 0 |
| AMP deaminase 2 isoform X2 [Homo sapiens] | gi 578798942 | 3.98 | FIKRAMK | 7.158061 | 0 |
| coagulation factor VIII isoform X1 [Canis lupus familiaris] | gi 545557151 | 18.129999 | EGSLAKER | 7.370575 | 0 |
| zinc finger protein 568 isoform 2 [Homo sapiens] | gi 325651956 | 6.7600002 | ASLSIHK | 7.419601 | 0 |
| myotubularin-related protein 10 isoform X3 [Canis lupus familiaris] | gi 545493194 | 14.04 | SISGTPLSKFLSGAK | 7.520732 | 0 |
| sorting nexin-25 isoform X4 [Homo sapiens] | gi 578809437 | 18.02 | RVVISHNMDK | 7.611645 | 0 |
| zinc finger protein 836 [Homo sapiens] | gi 156627573 | 13.16 | MHTGDKPYK | 7.766491 | 0 |
| protein PRRC2B [Canis lupus familiaris] | gi 345805923 | 12.61 | KELAKRSFSSQRPLADR | 7.777759 | 0 |
| 39S ribosomal protein L11, mitochondrial isoform X1 [Homo sapiens] | gi 578821681 | 5.3200002 | AGLAMPGPPLGPVLGQR | 7.77847 | 0 |
| HLA class I histocompatibility antigen, alpha chain F isoform X4 [Homo sapiens] | gi 578842317 | 3.8599999 | TLAMSGK | 7.859496 | 0 |
| AF119917_31 PRO2249 [Homo sapiens] | gi 7770175 | 11.59 | MDLPTCGAR | 7.994611 | 0 |
| coiled-coil domain-containing protein 136 isoform X13 [Homo sapiens] | gi 578814522 | 13.98 | GGSVGSLSVNK | 8.085492 | 0 |
| notch related protein, partial [Homo sapiens] | gi 1749368 | 4.79 | GDSPGPR | 8.093087 | 0 |
| RNA-binding motif protein, X chromosome isoform 1 [Homo sapiens] | gi 56699409 | 6.25 | SRGPPRGLR | 8.13002 | 0 |
| unnamed protein product [Homo sapiens] | gi 194389262 | 4.2399998 | GNNICEGGEEMDNK | 8.16553 | 0 |
| hCG1654062 [Homo sapiens] | gi 119627151 | 19.02 | TEANGT | 8.209194 | 0 |
| unnamed protein product [Homo sapiens] | gi 194381768 | 12.38 | KEDGTPAATGGSQPPSMGR | 8.303342 | 0 |
| zinc finger protein 609 [Homo sapiens] | gi 71725360 | 9.2700005 | MSLSSGASGGK | 8.445717 | 0 |
| hCG1820498 [Homo sapiens] | gi 119577805 | 8.3299999 | TTWKIFLNSCLSKIK | 8.581983 | 0 |
| bcl-2-like protein 10 isoform X1 [Homo sapiens] | gi 530405270 | 15.11 | EQEGDVAR | 8.605927 | 0 |
| unnamed protein product, partial [Homo sapiens] | gi 40042882 | 7.9899998 | YDIFDPR | 8.709718 | 0 |
| leiomodrin-2 [Canis lupus familiaris] | gi 359321176 | 7.6599998 | KQPNNILKEIKNSLR | 8.735965 | 0 |
| carcinoembryonic antigen-related cell adhesion molecule 18 precursor [Homo sapiens] | gi 508083061 | 15.26 | MDLSRPR | 8.804919 | 0 |
| SH2B adapter protein 3 isoform X1 [Canis lupus familiaris] | gi 545543838 | 8.8999996 | AGLARK | 8.842726 | 0 |
| iroquois-class homeodomain protein IRX-5 isoform X2 [Canis lupus familiaris] | gi 545491132 | 14.69 | KGHP T LLE | 8.861404 | 0 |
| mitogen-activated protein kinase kinase kinase 6 [Canis lupus familiaris] | gi 545492222 | 20.8799999 | SRSPGSPR | 9.084064 | 0 |
| cohesin subunit SA-3 isoform X1 [Canis lupus familiaris] | gi 545500886 | 12.11 | QASEGHPPVGRITGR | 9.473022 | 0 |
| 60S ribosomal protein L13 isoform 2 [Homo sapiens] | gi 341604768 | 20.120001 | TIGISVDPR | 9.561173 | 0 |
| C2 domain-containing protein 3 [Canis lupus familiaris] | gi 545537153 | 11.82 | KGQGSAGVR | 9.567533 | 0 |

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|---|--------------|-----------------------|----------|---|
| SEC23-interacting protein isoform X2 [Canis lupus familiaris] | gi 545548137 | 18.93 QKAVKLEQKK | 9.604817 | 0 |
| F-box/LRR-repeat protein 19 isoform 1 [Homo sapiens] | gi 157168349 | 14.79 ADNGEEGASLGSGWK | 9.837845 | 0 |
| baculoviral IAP repeat-containing protein 2 isoform 2 [Homo sapiens] | gi 390608639 | 8.5600004 NTSPMR | 9.931263 | 0 |
| inositol 1,4,5-trisphosphate receptor type 3 isoform X3 [Homo sapiens] | gi 578811675 | 2.72 KGSGK | 9.972209 | 0 |
| WAS/WASL-interacting protein family member 3-like [Homo sapiens] | gi 530380345 | 5 ASFGR | 10.1116 | 0 |
| unnamed protein product, partial [Homo sapiens] | gi 40979160 | 14.45 HSRXWDFR | 10.12257 | 0 |
| disintegrin and metalloproteinase domain-containing protein 8 [Canis lupus familiaris] | gi 545548488 | 8.96 VSAAFPRP | 10.33356 | 0 |
| ERI1 exoribonuclease 3 isoform X2 [Homo sapiens] | gi 530363292 | 9.0900002 TLPTS | 10.39998 | 0 |
| sirtuin (silent mating type information regulation 2 homolog) 3 (<i>S. cerevisiae</i>), isoform CRA_a, partial [Homo sapiens] | gi 119581643 | 7.8099999 EAGAGR | 11.30224 | 0 |
| exonuclease 3'-5' domain-containing protein 1 isoform X5 [Canis lupus familiaris] | gi 545549483 | 12.99 YLSFLEERQK | 11.79414 | 0 |
| F-BAR and double SH3 domains protein 1 isoform X2 [Canis lupus familiaris] | gi 545490432 | 11 LAGPFLKK | 12.34407 | 0 |