Supplementary Tables

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| **Table 2.** *Potential peptide biomarkers for GELATIN (Sus scrofa)* |
| Peptide sequence | Probability | Protein name | Accession no.  | Remark |
| Specific Peptide Biomarker (Sus Scrofa) |
| 1. VGPPGPSGNAGPPGPPGPAGK
 | 0.9999 | Collagen alpha-1(I) chain preproprotein | tr|A0A287A1S6|A0A287A1S6 | / |
| 1. TGPPGPAGQDGR
 | 0.9999 | / |
| 1. QGPSGPSGER
 | 0.9999 | / |
| 1. PGEAGLPGAK
 | 0.9999 | / |
| 1. PGADGVAGPK
 | 0.9999 | / |
| 1. GVVGLPGQR
 | 0.9999 | / |
| 1. GVQGPPGPAGPR
 | 0.9999 | / |
| 1. GVPGPPGAVGPAGK
 | 0.9999 | / |
| 1. GSPGEAGRPGEAGLPGAK
 | 0.9999 | / |
| 1. GSPGADGPAGAPGTPGPQGIAGQR
 | 0.9999 | / |
| 1. GSAGPPGATGFPGAAGR
 | 0.9999 | / |
| 1. GRPGPPGPAGAR
 | 0.9999 | / |
| 1. GQAGVMGFPGPK
 | 0.9999 | / |
| 1. GPSGPQGPSGPPGPK
 | 0.9999 | / |
| 1. GPPGPQGAR
 | 0.9999 | / |
| 1. GPPGPMGPPGLAGPPGESGR
 | 0.9999 | / |
| 1. GNDGATGAAGPPGPTGPAGPPGFPGAVGAK
 | 0.9999 | / |
| 1. GLTGSPGSPGPDGK
 | 0.9999 | / |
| 1. GLTGPIGPPGPAGAPGDK
 | 0.9999 | / |
| 1. GFSGLQGPPGPPGSPGEQGPSGASGPAGPR
 | 0.9999 | / |
| 1. GFPGLPGPSGEPGK
 | 0.9999 | / |
| 1. GFPGADGVAGPK
 | 0.9999 | / |
| 1. GEPGSPGENGAPGQMGPR
 | 0.9999 | / |
| 1. GEPGPTGVQGPPGPAGEEGK
 | 0.9999 | / |
| 1. GEPGPPGPAGFAGPPGADGQPGAK
 | 0.9999 | / |
| 1. GEPGPAGLPGPPGER
 | 0.9999 | / |
| 1. GDAGPPGPAGPTGPPGPIGSVGAPGPK
 | 0.9999 | / |
| 1. GANGAPGNDGAK
 | 0.9999 | / |
| 1. GANGAPGIAGAPGFPGAR
 | 0.9999 | Collagen alpha-1(I) chain preproprotein | tr|A0A287A1S6|A0A287A1S6 | / |
| 1. GAAGLPGPK
 | 0.9999 | / |
| 1. EGAPGAEGSPGR
 | 0.9999 | / |
| 1. DGLNGLPGPIGPPGPR
 | 0.9998 | / |
| 1. DGEAGAQGPPGPAGPAGER
 | 0.9998 | / |
| 1. GPAGPQGPR
 | 0.9997 | / |
| 1. GLPGTAGLPGMKGHR
 | 0.9997 | / |
| 1. GPPGPPGK
 | 0.9996 | / |
| 1. NGDDGEAGKPGRPGER
 | 0.9995 | / |
| 1. PGEAGPPGPPGPAGEK
 | 0.9993 | / |
| 1. GDKGETGEQGDR
 | 0.9992 | / |
| 1. PGPAGPK
 | 0.9989 | / |
| 1. PGPPGAVGPAGK
 | 0.9980 | / |
| 1. PGPPGPAGAR
 | 0.9973 | / |
| 1. PGPPGPPGAR
 | 0.9965 | / |
| 1. GPPGSPGEQGPSGASGPAGPR
 | 0.9957 | / |
| 1. GEAGAQGPPGPAGPAGER
 | 0.9949 | / |
| 1. GLPGPPGAPGPQGF
 | 0.9932 | / |
| 1. AAGLPGPK
 | 0.9795 | / |
| 1. GRPGPPGPPGAR
 | 0.9735 | / |
| 1. AGPPGPPGPAGK
 | 0.9638 | / |
| 1. VGAPGPAGAR
 | 0.9999 | Collagen type I alpha 2 chain | >tr|F1SFA7|F1SFA7 | / |
| 1. TGQPGAVGPAGIR
 | 0.9999 | / |
| 1. TGETGASGPPGFAGEK
 | 0.9999 | / |
| 1. ILGAPGFLGLPGSR
 | 0.9999 | / |
| 1. IGPPGPSGISGPPGPPGPAGK
 | 0.9999 | / |
| 1. GPSGPPGPDGNK
 | 0.9999 | / |
| 1. GPPGESGAAGPAGPIGSR
 | 0.9999 | / |
| 1. GPPGAVGNPGVNGAPGEAGR
 | 0.9999 | / |
| 1. GPNGEVGSAGPPGPPGLR
 | 0.9999 | / |
| 1. GLVGEPGPAGSK
 | 0.9999 | / |
| 1. GLPGVAGSVGEPGPLGIAGPPGAR
 | 0.9999 | / |
| 1. GIPGPAGAAGATGAR
 | 0.9999 | / |
| 1. GIPGEFGLPGPAGPR
 | 0.9999 | / |
| 1. GFPGTPGLPGFK
 | 0.9999 | Collagen type I alpha 2 chain | >tr|F1SFA7|F1SFA7 | / |
| 1. GFPGSPGNVGPAGK
 | 0.9999 | / |
| 1. GEVGPAGPNGFAGPAGAAGQPGAK
 | 0.9999 | / |
| 1. GEPGVLGAPGTAGPSGPSGLPGER
 | 0.9999 | / |
| 1. GEPGPAGSVGPAGAVGPR
 | 0.9999 | / |
| 1. GEPGNIGFPGPK
 | 0.9999 | / |
| 1. GEPGAPGENGTPGQTGAR
 | 0.9999 | / |
| 1. GEPGAAGPQGPPGPSGEEGK
 | 0.9999 | / |
| 1. GENGPVGPTGPVGAAGPAGPNGPPGPAGSR
 | 0.9999 | / |
| 1. GELGPVGNPGPAGPAGPR
 | 0.9999 | / |
| 1. GDGGPPGATGFPGAAGR
 | 0.9999 | / |
| 1. GAPGAVGAPGPAGANGDR
 | 0.9999 | / |
| 1. GAAGLPGVAGAPGLPGPR
 | 0.9999 | / |
| 1. EGPAGLPGIDGR
 | 0.9999 | / |
| 1. AGVMGPPGSR
 | 0.9999 | / |
| 1. GYPGNPGPAGAAGAPGPQGAVGPAGK
 | 0.9998 | / |
| 1. GLVGEPGPAGSK
 | 0.9999 | / |
| 1. GEPGAAGPQGPPGPSGEEGK
 | 0.9995 | / |
| 1. GILGAPGFLGLPGSR
 | 0.9995 | / |
| 1. GFPGTPGLPGFKGIR
 | 0.9995 | / |
| 1. PGPIGPAGAR
 | 0.9994 | / |
| 1. GPSGEPGTAGPPGTPGPQGILGAPGFLGLPGSR
 | 0.9992 | / |
| 1. GEQGPAGPPGFQGLPGPAGTAGEVGK
 | 0.9992 | / |
| 1. GNDGSVGPVGPAGPIGSAGPPGFPGAPGPK
 | 0.9990 | / |
| 1. GPPGAVGAPGPQGF
 | 0.9932 | / |
| 1. PGFLGLPGSR
 | 0.9920 | / |
| 1. PVGPAGPIGSAGPPGFPGAPGPK
 | 0.9912 | / |
| 1. QGPAGEPGEPGQTGPAGAR
 | 0.9707 | / |
| 1. NGETGPQGPPGPTGPGGDK
 | 0.9998 | Collagen type III alpha 1 chain | tr|A0A286ZQ85|A0A286ZQ85 | / |
| 1. GSPGPQGPPGAPGPGGISGITGAR
 | 0.9998 | / |
| 1. GSPGGPGAAGFPGGR
 | 0.9998 | / |
| 1. GRPGLPGAAGAR
 | 0.9998 | / |
| 1. GPPGPQGLPGLAGAAGEPGR
 | 0.9998 | / |
| 1. GPPGAVGPSGPR
 | 0.9998 | / |
| 1. GLAGPPGMPGAR
 | 0.9998 | / |
| 1. GEVGPAGSPGPSGSPGQR
 | 0.9998 | / |
| 1. GETGPAGPAGAPGPAGSR
 | 0.9998 | Collagen type III alpha 1 chain | tr|A0A286ZQ85|A0A286ZQ85 | / |
| 1. GESGAPGLPGIAGPR
 | 0.9998 | / |
| 1. GEMGPAGIPGAPGLMGAR
 | 0.9998 | / |
| 1. GEAGSPGIPGPK
 | 0.9998 | / |
| 1. GEAGAPGIPGGK
 | 0.9993 | / |
| 1. GAPGANGLPGEK
 | 0.9997 | / |
| 1. DGSPGEPGANGLPGAAGER
 | 0.9998 | / |
| 1. GGPGGPGLPGPPGK
 | 0.9997 | / |
| 1. GPPGPPGTNGAPGQR
 | 0.9996 | / |
| 1. DGASGHPGPIGPPGPR
 | 0.9996 | / |
| 1. DGNPGSDGLPGR
 | 0.9994 | / |
| 1. NGEKGDTGAPGLK
 | 0.9993 | / |
| 1. GENGKPGPSGLNGER
 | 0.9983 | / |
| 1. PGPSGLNGER
 | 0.9979 | / |
| 1. GSPGPQGVK
 | 0.9971 | / |
| 1. GPPGPQGLPGLAGAAGEPGRD
 | 0.9921 | / |
| 1. GGAGPPGPEGGK
 | 0.9906 | / |
| 1. PGPPGSQGESGRPGPPGSPGPR
 | 0.9635 | / |
| 1. GPSGPPGKR
 | 0.9732 | Collagen type V alpha 1 chain | tr|F1S021|F1S021 | / |
| 1. GPPGPPGK
 | 0.9956 | / |

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| **Table 3*.*** *Potential peptide biomarkers for collagen (Sus scrofa)* |
| Peptide sequence | Probability | Protein name | Accession no. | Remark |
| Specific Peptide Biomarker (Sus Scrofa) | Non-Specific Peptide Biomarker |
| 1. PGPPGSNGNPGPPGSSGPPGK
 | 0.9993 | Collagen type III alpha 1 chain | >tr|A0A286ZQ85|A0A286ZQ85 | / |  |
| 1. GPVGPSGPPGK
 | 0.9993 |  | X – SS,BT |
| 1. GPPGAVGPSGPR
 | 0.9993 | / |  |
| 1. AGVAGGGIGGYPGPA
 | 0.9993 |  |  |
| 1. RGPPGAVGPSGPR
 | 0.9929 | / |  |
| 1. GERGGPGPAGPR
 | 0.9758 | / |  |
| 1. DPGGSGADGAPGK
 | 0.9758 | / |  |
| 1. GPVGPSGPPGKDGASGHPGPI
 | 0.9742 |  | X – SS,BT |
| 1. TGPQGPPGPTGPGGDK
 | 0.9670 | / |  |
| 1. GLPGPPGLKGPAGM
 | 0.9670 | / |  |
| 1. GEPGPQGHAGAAGPP
 | 0.9589 | / |  |
| 1. GPAGERGGPGPAGPR
 | 0.9576 | / |  |
| 1. APGERGPPGAVGPSGPR
 | 0.9568 | / |  |
| 1. PGPIGPAGAR
 | 0.9993 | Collagen type I alpha 2 chain | >tr|F1SFA7|F1SFA7 |  | X -GG |
| 1. GPSGPQGIR
 | 0.9993 |  | X -SS,BT |
| 1. GPRGDQGPVGR
 | 0.9993 |  | X -SS,BT |
| 1. GPAGPSGPAGK
 | 0.9993 |  | X -SS,BT |
| 1. GPAGPAGPR
 | 0.9993 |  | X -SS,BT |
| 1. GERGPPGESGAAGPAGPIG
 | 0.9993 | / |  |
| 1. GEAGPAGPAGPAGPR
 | 0.9993 |  | X -SS,BT |
| 1. AGPAGPAGPAGPR
 | 0.9993 |  | X -SS,BT |
| 1. AAGPAGPNGPPGPAGSR
 | 0.9993 | / |  |
| 1. VGAAGPAGPNGPPGPAGSR
 | 0.9914 | / |  |
| 1. GERGLPGVAGSVGEPGP
 | 0.9902 |  | X -SS,BT |
| 1. PGPAGPAGPR
 | 0.9897 |  | X -SS,BT |
| 1. GFPGPKGPTGDPGK
 | 0.9764 | / |  |
| 1. GAAGLPGVAGAPG
 | 0.9605 |  | X -SS,BT,GG |
| 1. APGAVGAPGPAGANGDR
 | 0.9542 | / |  |
| 1. AGVMGPPGSR
 | 0.9509 | / |  |
| 1. PPGRPGPVGQMGPVGAPGRPGPPGPPGPK
 | 0.9993 | Collagen type IV alpha 2 chain | tr|A0A5G2RJ53|A0A5G2RJ53 | / |  |
| 1. PGEANTLPGPAGAPGQK
 | 0.9993 | / |  |
| 1. GIPGMPGI
 | 0.9993 | / |  |
| 1. GAPGIFGPEGYR
 | 0.9891 | / |  |
| 1. GGRGQPGPVGPQGYTG
 | 0.9882 |  | X -SS,BT |
| 1. GAKGSMGYPGPSGFPGA
 | 0.9754 | / |  |
| 1. GQPGNRGLGFYGEK
 | 0.9167 | / |  |