Supplementary Tables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 2.** *Potential peptide biomarkers for GELATIN (Sus scrofa)* | | | | |
| Peptide sequence | Probability | Protein name | Accession no. | Remark |
| Specific Peptide Biomarker (Sus Scrofa) |
| 1. [VGPPGPSGNAGPPGPPGPAGK](javascript:peplink('VGPPGPSGNAGPPGPPGPAGK',%20'2');) | 0.9999 | Collagen alpha-1(I) chain preproprotein | tr|A0A287A1S6|A0A287A1S6 | / |
| 1. [TGPPGPAGQDGR](javascript:peplink('TGPPGPAGQDGR',%20'2');) | 0.9999 | / |
| 1. [QGPSGPSGER](javascript:peplink('QGPSGPSGER',%20'2');) | 0.9999 | / |
| 1. [PGEAGLPGAK](javascript:peplink('PGEAGLPGAK',%20'2');) | 0.9999 | / |
| 1. [PGADGVAGPK](javascript:peplink('PGADGVAGPK',%20'2');) | 0.9999 | / |
| 1. [GVVGLPGQR](javascript:peplink('GVVGLPGQR',%20'2');) | 0.9999 | / |
| 1. [GVQGPPGPAGPR](javascript:peplink('GVQGPPGPAGPR',%20'2');) | 0.9999 | / |
| 1. [GVPGPPGAVGPAGK](javascript:peplink('GVPGPPGAVGPAGK',%20'2');) | 0.9999 | / |
| 1. [GSPGEAGRPGEAGLPGAK](javascript:peplink('GSPGEAGRPGEAGLPGAK',%20'2');) | 0.9999 | / |
| 1. [GSPGADGPAGAPGTPGPQGIAGQR](javascript:peplink('GSPGADGPAGAPGTPGPQGIAGQR',%20'2');) | 0.9999 | / |
| 1. [GSAGPPGATGFPGAAGR](javascript:peplink('GSAGPPGATGFPGAAGR',%20'2');) | 0.9999 | / |
| 1. [GRPGPPGPAGAR](javascript:peplink('GRPGPPGPAGAR',%20'2');) | 0.9999 | / |
| 1. [GQAGVMGFPGPK](javascript:peplink('GQAGVMGFPGPK',%20'2');) | 0.9999 | / |
| 1. [GPSGPQGPSGPPGPK](javascript:peplink('GPSGPQGPSGPPGPK',%20'2');) | 0.9999 | / |
| 1. [GPPGPQGAR](javascript:peplink('GPPGPQGAR',%20'2');) | 0.9999 | / |
| 1. [GPPGPMGPPGLAGPPGESGR](javascript:peplink('GPPGPMGPPGLAGPPGESGR',%20'2');) | 0.9999 | / |
| 1. [GNDGATGAAGPPGPTGPAGPPGFPGAVGAK](javascript:peplink('GNDGATGAAGPPGPTGPAGPPGFPGAVGAK',%20'2');) | 0.9999 | / |
| 1. [GLTGSPGSPGPDGK](javascript:peplink('GLTGSPGSPGPDGK',%20'2');) | 0.9999 | / |
| 1. [GLTGPIGPPGPAGAPGDK](javascript:peplink('GLTGPIGPPGPAGAPGDK',%20'2');) | 0.9999 | / |
| 1. [GFSGLQGPPGPPGSPGEQGPSGASGPAGPR](javascript:peplink('GFSGLQGPPGPPGSPGEQGPSGASGPAGPR',%20'2');) | 0.9999 | / |
| 1. [GFPGLPGPSGEPGK](javascript:peplink('GFPGLPGPSGEPGK',%20'2');) | 0.9999 | / |
| 1. [GFPGADGVAGPK](javascript:peplink('GFPGADGVAGPK',%20'2');) | 0.9999 | / |
| 1. [GEPGSPGENGAPGQMGPR](javascript:peplink('GEPGSPGENGAPGQMGPR',%20'2');) | 0.9999 | / |
| 1. [GEPGPTGVQGPPGPAGEEGK](javascript:peplink('GEPGPTGVQGPPGPAGEEGK',%20'2');) | 0.9999 | / |
| 1. [GEPGPPGPAGFAGPPGADGQPGAK](javascript:peplink('GEPGPPGPAGFAGPPGADGQPGAK',%20'2');) | 0.9999 | / |
| 1. [GEPGPAGLPGPPGER](javascript:peplink('GEPGPAGLPGPPGER',%20'2');) | 0.9999 | / |
| 1. [GDAGPPGPAGPTGPPGPIGSVGAPGPK](javascript:peplink('GDAGPPGPAGPTGPPGPIGSVGAPGPK',%20'2');) | 0.9999 | / |
| 1. [GANGAPGNDGAK](javascript:peplink('GANGAPGNDGAK',%20'2');) | 0.9999 | / |
| 1. [GANGAPGIAGAPGFPGAR](javascript:peplink('GANGAPGIAGAPGFPGAR',%20'2');) | 0.9999 | Collagen alpha-1(I) chain preproprotein | tr|A0A287A1S6|A0A287A1S6 | / |
| 1. [GAAGLPGPK](javascript:peplink('GAAGLPGPK',%20'2');) | 0.9999 | / |
| 1. [EGAPGAEGSPGR](javascript:peplink('EGAPGAEGSPGR',%20'2');) | 0.9999 | / |
| 1. [DGLNGLPGPIGPPGPR](javascript:peplink('DGLNGLPGPIGPPGPR',%20'2');) | 0.9998 | / |
| 1. [DGEAGAQGPPGPAGPAGER](javascript:peplink('DGEAGAQGPPGPAGPAGER',%20'2');) | 0.9998 | / |
| 1. [GPAGPQGPR](javascript:peplink('GPAGPQGPR',%20'2');) | 0.9997 | / |
| 1. [GLPGTAGLPGMKGHR](javascript:peplink('GLPGTAGLPGMKGHR',%20'2');) | 0.9997 | / |
| 1. [GPPGPPGK](javascript:peplink('GPPGPPGK',%20'2');) | 0.9996 | / |
| 1. [NGDDGEAGKPGRPGER](javascript:peplink('NGDDGEAGKPGRPGER',%20'2');) | 0.9995 | / |
| 1. [PGEAGPPGPPGPAGEK](javascript:peplink('PGEAGPPGPPGPAGEK',%20'2');) | 0.9993 | / |
| 1. [GDKGETGEQGDR](javascript:peplink('GDKGETGEQGDR',%20'2');) | 0.9992 | / |
| 1. [PGPAGPK](javascript:peplink('PGPAGPK',%20'2');) | 0.9989 | / |
| 1. [PGPPGAVGPAGK](javascript:peplink('PGPPGAVGPAGK',%20'2');) | 0.9980 | / |
| 1. [PGPPGPAGAR](javascript:peplink('PGPPGPAGAR',%20'2');) | 0.9973 | / |
| 1. [PGPPGPPGAR](javascript:peplink('PGPPGPPGAR',%20'2');) | 0.9965 | / |
| 1. [GPPGSPGEQGPSGASGPAGPR](javascript:peplink('GPPGSPGEQGPSGASGPAGPR',%20'2');) | 0.9957 | / |
| 1. [GEAGAQGPPGPAGPAGER](javascript:peplink('GEAGAQGPPGPAGPAGER',%20'2');) | 0.9949 | / |
| 1. [GLPGPPGAPGPQGF](javascript:peplink('GLPGPPGAPGPQGF',%20'2');) | 0.9932 | / |
| 1. [AAGLPGPK](javascript:peplink('AAGLPGPK',%20'2');) | 0.9795 | / |
| 1. [GRPGPPGPPGAR](javascript:peplink('GRPGPPGPPGAR',%20'2');) | 0.9735 | / |
| 1. [AGPPGPPGPAGK](javascript:peplink('AGPPGPPGPAGK',%20'2');) | 0.9638 | / |
| 1. [VGAPGPAGAR](javascript:peplink('VGAPGPAGAR',%20'2');) | 0.9999 | Collagen type I alpha 2 chain | >tr|F1SFA7|F1SFA7 | / |
| 1. [TGQPGAVGPAGIR](javascript:peplink('TGQPGAVGPAGIR',%20'2');) | 0.9999 | / |
| 1. [TGETGASGPPGFAGEK](javascript:peplink('TGETGASGPPGFAGEK',%20'2');) | 0.9999 | / |
| 1. [ILGAPGFLGLPGSR](javascript:peplink('ILGAPGFLGLPGSR',%20'2');) | 0.9999 | / |
| 1. [IGPPGPSGISGPPGPPGPAGK](javascript:peplink('IGPPGPSGISGPPGPPGPAGK',%20'2');) | 0.9999 | / |
| 1. [GPSGPPGPDGNK](javascript:peplink('GPSGPPGPDGNK',%20'2');) | 0.9999 | / |
| 1. [GPPGESGAAGPAGPIGSR](javascript:peplink('GPPGESGAAGPAGPIGSR',%20'2');) | 0.9999 | / |
| 1. [GPPGAVGNPGVNGAPGEAGR](javascript:peplink('GPPGAVGNPGVNGAPGEAGR',%20'2');) | 0.9999 | / |
| 1. [GPNGEVGSAGPPGPPGLR](javascript:peplink('GPNGEVGSAGPPGPPGLR',%20'2');) | 0.9999 | / |
| 1. [GLVGEPGPAGSK](javascript:peplink('GLVGEPGPAGSK',%20'2');) | 0.9999 | / |
| 1. [GLPGVAGSVGEPGPLGIAGPPGAR](javascript:peplink('GLPGVAGSVGEPGPLGIAGPPGAR',%20'2');) | 0.9999 | / |
| 1. [GIPGPAGAAGATGAR](javascript:peplink('GIPGPAGAAGATGAR',%20'2');) | 0.9999 | / |
| 1. [GIPGEFGLPGPAGPR](javascript:peplink('GIPGEFGLPGPAGPR',%20'2');) | 0.9999 | / |
| 1. [GFPGTPGLPGFK](javascript:peplink('GFPGTPGLPGFK',%20'2');) | 0.9999 | Collagen type I alpha 2 chain | >tr|F1SFA7|F1SFA7 | / |
| 1. [GFPGSPGNVGPAGK](javascript:peplink('GFPGSPGNVGPAGK',%20'2');) | 0.9999 | / |
| 1. [GEVGPAGPNGFAGPAGAAGQPGAK](javascript:peplink('GEVGPAGPNGFAGPAGAAGQPGAK',%20'2');) | 0.9999 | / |
| 1. [GEPGVLGAPGTAGPSGPSGLPGER](javascript:peplink('GEPGVLGAPGTAGPSGPSGLPGER',%20'2');) | 0.9999 | / |
| 1. [GEPGPAGSVGPAGAVGPR](javascript:peplink('GEPGPAGSVGPAGAVGPR',%20'2');) | 0.9999 | / |
| 1. [GEPGNIGFPGPK](javascript:peplink('GEPGNIGFPGPK',%20'2');) | 0.9999 | / |
| 1. [GEPGAPGENGTPGQTGAR](javascript:peplink('GEPGAPGENGTPGQTGAR',%20'2');) | 0.9999 | / |
| 1. [GEPGAAGPQGPPGPSGEEGK](javascript:peplink('GEPGAAGPQGPPGPSGEEGK',%20'2');) | 0.9999 | / |
| 1. [GENGPVGPTGPVGAAGPAGPNGPPGPAGSR](javascript:peplink('GENGPVGPTGPVGAAGPAGPNGPPGPAGSR',%20'2');) | 0.9999 | / |
| 1. [GELGPVGNPGPAGPAGPR](javascript:peplink('GELGPVGNPGPAGPAGPR',%20'2');) | 0.9999 | / |
| 1. [GDGGPPGATGFPGAAGR](javascript:peplink('GDGGPPGATGFPGAAGR',%20'2');) | 0.9999 | / |
| 1. [GAPGAVGAPGPAGANGDR](javascript:peplink('GAPGAVGAPGPAGANGDR',%20'2');) | 0.9999 | / |
| 1. [GAAGLPGVAGAPGLPGPR](javascript:peplink('GAAGLPGVAGAPGLPGPR',%20'2');) | 0.9999 | / |
| 1. [EGPAGLPGIDGR](javascript:peplink('EGPAGLPGIDGR',%20'2');) | 0.9999 | / |
| 1. [AGVMGPPGSR](javascript:peplink('AGVMGPPGSR',%20'2');) | 0.9999 | / |
| 1. [GYPGNPGPAGAAGAPGPQGAVGPAGK](javascript:peplink('GYPGNPGPAGAAGAPGPQGAVGPAGK',%20'2');) | 0.9998 | / |
| 1. [GLVGEPGPAGSK](javascript:peplink('GLVGEPGPAGSK',%20'2');) | 0.9999 | / |
| 1. [GEPGAAGPQGPPGPSGEEGK](javascript:peplink('GEPGAAGPQGPPGPSGEEGK',%20'2');) | 0.9995 | / |
| 1. [GILGAPGFLGLPGSR](javascript:peplink('GILGAPGFLGLPGSR',%20'2');) | 0.9995 | / |
| 1. [GFPGTPGLPGFKGIR](javascript:peplink('GFPGTPGLPGFKGIR',%20'2');) | 0.9995 | / |
| 1. [PGPIGPAGAR](javascript:peplink('PGPIGPAGAR',%20'2');) | 0.9994 | / |
| 1. [GPSGEPGTAGPPGTPGPQGILGAPGFLGLPGSR](javascript:peplink('GPSGEPGTAGPPGTPGPQGILGAPGFLGLPGSR',%20'2');) | 0.9992 | / |
| 1. [GEQGPAGPPGFQGLPGPAGTAGEVGK](javascript:peplink('GEQGPAGPPGFQGLPGPAGTAGEVGK',%20'2');) | 0.9992 | / |
| 1. [GNDGSVGPVGPAGPIGSAGPPGFPGAPGPK](javascript:peplink('GNDGSVGPVGPAGPIGSAGPPGFPGAPGPK',%20'2');) | 0.9990 | / |
| 1. [GPPGAVGAPGPQGF](javascript:peplink('GPPGAVGAPGPQGF',%20'2');) | 0.9932 | / |
| 1. [PGFLGLPGSR](javascript:peplink('PGFLGLPGSR',%20'2');) | 0.9920 | / |
| 1. [PVGPAGPIGSAGPPGFPGAPGPK](javascript:peplink('PVGPAGPIGSAGPPGFPGAPGPK',%20'2');) | 0.9912 | / |
| 1. [QGPAGEPGEPGQTGPAGAR](javascript:peplink('QGPAGEPGEPGQTGPAGAR',%20'2');) | 0.9707 | / |
| 1. [NGETGPQGPPGPTGPGGDK](javascript:peplink('NGETGPQGPPGPTGPGGDK',%20'2');) | 0.9998 | Collagen type III alpha 1 chain | tr|A0A286ZQ85|A0A286ZQ85 | / |
| 1. [GSPGPQGPPGAPGPGGISGITGAR](javascript:peplink('GSPGPQGPPGAPGPGGISGITGAR',%20'2');) | 0.9998 | / |
| 1. [GSPGGPGAAGFPGGR](javascript:peplink('GSPGGPGAAGFPGGR',%20'2');) | 0.9998 | / |
| 1. [GRPGLPGAAGAR](javascript:peplink('GRPGLPGAAGAR',%20'2');) | 0.9998 | / |
| 1. [GPPGPQGLPGLAGAAGEPGR](javascript:peplink('GPPGPQGLPGLAGAAGEPGR',%20'2');) | 0.9998 | / |
| 1. [GPPGAVGPSGPR](javascript:peplink('GPPGAVGPSGPR',%20'2');) | 0.9998 | / |
| 1. [GLAGPPGMPGAR](javascript:peplink('GLAGPPGMPGAR',%20'2');) | 0.9998 | / |
| 1. [GEVGPAGSPGPSGSPGQR](javascript:peplink('GEVGPAGSPGPSGSPGQR',%20'2');) | 0.9998 | / |
| 1. [GETGPAGPAGAPGPAGSR](javascript:peplink('GETGPAGPAGAPGPAGSR',%20'2');) | 0.9998 | Collagen type III alpha 1 chain | tr|A0A286ZQ85|A0A286ZQ85 | / |
| 1. GESGAPGLPGIAGPR | 0.9998 | / |
| 1. [GEMGPAGIPGAPGLMGAR](javascript:peplink('GEMGPAGIPGAPGLMGAR',%20'2');) | 0.9998 | / |
| 1. [GEAGSPGIPGPK](javascript:peplink('GEAGSPGIPGPK',%20'2');) | 0.9998 | / |
| 1. [GEAGAPGIPGGK](javascript:peplink('GEAGAPGIPGGK',%20'2');) | 0.9993 | / |
| 1. [GAPGANGLPGEK](javascript:peplink('GAPGANGLPGEK',%20'2');) | 0.9997 | / |
| 1. [DGSPGEPGANGLPGAAGER](javascript:peplink('DGSPGEPGANGLPGAAGER',%20'2');) | 0.9998 | / |
| 1. [GGPGGPGLPGPPGK](javascript:peplink('GGPGGPGLPGPPGK',%20'2');) | 0.9997 | / |
| 1. [GPPGPPGTNGAPGQR](javascript:peplink('GPPGPPGTNGAPGQR',%20'2');) | 0.9996 | / |
| 1. [DGASGHPGPIGPPGPR](javascript:peplink('DGASGHPGPIGPPGPR',%20'2');) | 0.9996 | / |
| 1. [DGNPGSDGLPGR](javascript:peplink('DGNPGSDGLPGR',%20'2');) | 0.9994 | / |
| 1. [NGEKGDTGAPGLK](javascript:peplink('NGEKGDTGAPGLK',%20'2');) | 0.9993 | / |
| 1. [GENGKPGPSGLNGER](javascript:peplink('GENGKPGPSGLNGER',%20'2');) | 0.9983 | / |
| 1. [PGPSGLNGER](javascript:peplink('PGPSGLNGER',%20'2');) | 0.9979 | / |
| 1. [GSPGPQGVK](javascript:peplink('GSPGPQGVK',%20'2');) | 0.9971 | / |
| 1. [GPPGPQGLPGLAGAAGEPGRD](javascript:peplink('GPPGPQGLPGLAGAAGEPGRD',%20'2');) | 0.9921 | / |
| 1. [GGAGPPGPEGGK](javascript:peplink('GGAGPPGPEGGK',%20'2');) | 0.9906 | / |
| 1. [PGPPGSQGESGRPGPPGSPGPR](javascript:peplink('PGPPGSQGESGRPGPPGSPGPR',%20'2');) | 0.9635 | / |
| 1. GPSGPPGKR | 0.9732 | Collagen type V alpha 1 chain | tr|F1S021|F1S021 | / |
| 1. GPPGPPGK | 0.9956 | / |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **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 | / |  |