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20        40        60        80        100       120
MSPL      : RIVGGALASDSKWPWQVSLH---FGTT-HICGGTLIDAQWVLTAAHCFVFT---REKVLGKWKVYAG--TSNLHQLP--EAASIAETIINSNYT-----DEEDDYDIALMRLSK--PLTLS : 103
TMPRSS4   : RIVGGEEASVDSWPWQVSIQ---YDKQ-HVCGGSILDPHWVLTAAHCFERKH---TD-VFN-WKVRAG--SDLGSGFP--SLAVAKIIIEFNPM-----YPKDN-DIALMKLQF--PLTFS : 100
TMPRSS3   : RIVGGNMSLLSQWPWQASLQ---FQGY-HLCGGSVITPLWIITAAHCVYD---LYLPKSWTIQVGLVSL-LDNPA--PSHLVEKIVYHSHKYK-----PKRLGNDIALMKLAG--PLTFN : 102
TMPRSS2   : RIVGGESALPCANPWQVSLH---VQNV-HVCGGSITPEWIVTAAHCFVEKP---LNNPWHAFAGILRQSFMFYQ--AGYQVQKVIISHPNYD-----SKTKKNDIALMKLQK--PLTFN : 104
TMPRSS5   : RIVGGQSVAPGRWPWQASVA---LGFR-HTCCGSVLAPRWVVTAAHCFMHSF---RLARLSSWRVHAGLVSHSAVRPH--QGALVERIIPHPLYS-----AQNHQYDVALLRLQT--ALNFS : 105
DESC1     : RIVGGTEVEEGEWPWQASLQ---WDGS-HRCGATLINATWLVSAHCFE---TYKNPARWATASFVTIKPS----KMKRGLRRIIVHEKYK-----HPSHDYDIALSLBLSS--PVPYT : 100
HAT       : RILGGTEAEEGSEWPWQVSLR---LNNA-HHCGGSLINNMWILTAHCFER---SNSNPRDWIATSCIITTFP----KLMRVRNLIHNNYK-----SATHENDIALVRLN--SVTFY : 100
MATRIPTASE : RIVGGTDADCEGWPWQVSLH---ALGQGHICGASLISPNWLVSAHCFYIDDRGFRYSDPTQWTAFLGLHDQSQRSAPGVQERRLKRISHPPFN-----DFTFDYDIALLELEK--PAEYS : 111
MATRIPTASE2 : RIVGGTVSSEGEWPWQASLQ---IRGR-HICCGALIDRWVITAAHCFQED---SMASPKLWTVFLGKMRQNS-RWPGEVSKVSRFLHPYHE-----EDSHDYDVALQLLDH--PVVYS : 106
POL. (SER-3) : RIVGGSAAGRCWPWQVSLW---LRRREHRCGAVLVAERWLLSAHCFE--D---VYDPKQWAAFLG-TPFLS-GAEGQLER-VARTYKHPFYN-----LYTLDYDVALLELAG--PVRRS : 103
POL. (SER-1) : RIVGGMEASPEGEPWPQASLR---ENKE-HFCGAAIINARWLVSAHCFE---EFQDPTKQWVAYVCATYLSG-SEASTVRAQVVQIVKHPLYN-----ADTADFVAVLELTS--PLPFG : 104
POL. (SER-2) : RIVGGFGAASGEVWPQVSLK---EGSR-HFCGATVVGDRWLLSAHCFE---HTK-VEQVRAHLCTASLLG-LGSPVKIGLRRVVLHPLYN-----PGILDFDLAVLELAS--PLAFN : 103
HEPSIN    : RIVGGRTDSLGRWPWQVSLR---YDGA-HLCGGSLLSGDWVLTAAHCFEPER---NRVLSRWVFAVAVQAS---PHGLQLGVQAVVYHGGYLPFRDPNSEENSNDIALVHLSS--PLPLT : 109
CORIN     : RILCGRTSRPGRWPWQCSLQ---SEPSGHICCVLIAKKWLVAHCFEGR---ENAAVWKVVLGINNLDH-PSVFMQTRFVKTIILHPRYS-----RAVVYDYSIVELSE--DISET : 105
CHYMOB    : RIVNGEAVPGEHPWPQVSLQ---DKTGFHFCGSLISEDWVVTAAHCFG---VRTS-DVVVAGEFDQGS-DEENIVLKIADVFNPKFS-----ILTVNNDITLKLAT--PARFS : 101
CTRL      : RIVVNGENAVLGSWPWQVSLQ---DSSSGFHFCGSLISQSTVVTAAHCFN-----VSPGRHFVVLGEYDRSS-NAEPLQVLSVSRATHPSPWN-----STTMNNDVTLKLAS--PAQYT : 102
CHYMOB    : RIVVGGEDARPHSHPWQVSLQYLNKNDWRHTCCGGLTIASNFVLTAAHCFI-----SNTRTYRVAVCKNNLEVEDEEGSLFVGVDTIHHVHKRWN-----ALLLRNDIALIKLAE--HVELS : 106

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140       160       180       200       220       240
MSPL      : AHIHPACLPMHGQTFSLNETCWITGFGKTRTDDDKTSFFLREVQVNLIDFKKNDYLVYDYSYLTTPRMCAAGDLHGG-RDSCQGDSCGGPLVCEQNNR----WYLAGVTSWGTGCGQRNK--PG : 218
TMPRSS4   : GTVRPICLPFFDEELTPATPLWIIIGWFTKQNGGKMSDILLQASVQVIDSTRCNADDAYQGEVTEKMMCAIGPEGG-VDTCCQGDSCGGPLMY-QSDQ----WHVVGIVSWGYCGGPST--PG : 214
TMPRSS3   : EMIQPVCLPNSEENFPDGKVCWTSWCGATE-DGGDASPVLNHAAPLISNKDLQPPQGRVRRWHHLPLHALRCLPDGWRWNSCQGDSCGGPLVQERRL----WKLIVGATSEFGICADVKN--PG : 217
TMPRSS2   : DLVKPVCPLPNPMMQLPEQLWISGWGATE-EKGKTSVVLNAKAVLLIETQRCNSRYVDNLIITPAMIICAGFLQGN-VDSCQGDSCGGPLVTSNNNI----WVLIGDTSWGSQCAKAYR--PG : 218
TMPRSS5   : DTVGAVCLPAKEQHFPKGSRCWVSGWGHTHPSHTYSSDMLQDVTVPVLFSTQLCNSSCVYSGALTPRMLCAGYLDGR-ADACQGDSCGGPLVCPDGDGT----WRLVGVVSWGRCAPENH--PG : 220
DESC1     : NAVHRVCLPDASYEFQPGDVMFVTGFC-ALKNDGYSQNHRLRQAVTLLIDATCNQEPQAYNDAITPRMLCAGSLEGG-TDACQGDSCGGPLVS-SDARDI--WYLAGIVSWGDECAKPNK--PG : 215
HAT       : KDIHSCVCLPAATQNIIPPGSTAYVTGWC-AQEYAGHTVPELRQGVRIISNDVGNAPHSYNGAIIISGLMCAVPPQGG-VDACQGDSCGGPLVQ-EDSRRL--WFIIVGIVSWGDCGLPDK--PG : 215
MATRIPTASE : SMVRPICLPDASHVFPAGKAIWVTGWC-HTQYGGTGALILQKGEIRVINQTTCE--NLLPQQITPRMCMVGFSLGG-VDSCQGDSCGGPLSS-VEADGR--IFQAGVSWGDCQAQRNK--PG : 224
MATRIPTASE2 : ATVVRPVCCLPARSHFFEPGQHCHWITGWC-AQREGGVSNTLQKVDVQLVPQDLCS--EAYRYQVSPRMLCAGYRKGK-KDACQGDSCGGPLVC-REPSGR--WFLAGLVSWGGLCCGRPNF--PG : 219
POL. (SER-3) : RLVVRPICLPEPAPRPDPGTRCVITGWC-SVREGGSMARQLQKAAVRLLEQTCR--RFYPVQISSRMLCAGFPQGG-VDSCSGDAGGPLAC-REPSGR--WVLTGVTSWGYCGRPHF--PG : 216
POL. (SER-2) : RHIQPVCLPAATHIFPPSKKCLISGWGKEDFLVKPEVLQKATVELLDQALCA--SLYGHSLTDRMVCAGYLDGK-VDSCQGDSCGGPLVC-EEPSGR--FFLAGIVSWGIGCAEARR--PG : 218
POL. (SER-1) : KYIQPVCLPLAQKFPVGRKCMISGWCNTQEGNATKPELLQKASVGIIDQKTS--VLYNFSLTDRMVICAGFLEGG-VDSCQGDSCGGPLAC-EEAPGV--FYLIVGIVSWGIGCAQVKK--PG : 217
HEPSIN    : EYIQPVCLPAAGQALVDGKICVITGWC-NTQYYGQAGVLEARVPIISNDVGNADFYGNQIKPKMFCAGYPEGG-IDACQGDSCGGPLVCEDSISRTPRMRLCGIVSWGTCALAQK--PG : 227
CORIN     : GYVRPVCCLPNPEQWLEPDTYCYITGWC--HMGNKMPFKLQEGEVRIISLEHQS-YFDMKTIITRMLICAGYESGT-VDSCMGDSGGPLVC-EKPGGR--WTLFGLTSWGSVCFKVLG--PG : 218
CHYMOB    : QTVSAVCLPSADDDFPAGTLCATTGWCWKTKYNANKTPDKLQQAALPLLSNAEKK--KSWGRRITDVMICAG-ASG--VSSCMGDSGGPLVCQK-DGA---WTLVGVVSWGSDT-CSTSS--PG : 212
CTRL      : TRISVCLASSNEALTEGLTCVTTGWCRLSGVGNVTPAHLQVVALPLVTVNQCR--QYWSSITDSMVICAG-GAG--ASSCQGDSCGGPLVCQK-GNT---WVLIGIVSWGTKN-CNVRA--EA : 213
CHYMOB    : DTIQVACLPEKDSLLPKDYPCVYTGWGRLWTNG-PIADKLQGLQPVVDHATCSRIDWGWFRVKKTMVCA-GDCV-ISAQNGDSGGPLNCQLENGS---WVFCIVSFCRRGCNTRKK--EV : 222

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