**Additional file 5: The surveyed dataset**

This additional file provides the protein sequences of data used in this study

The amino acid sequence of 151 surveyed proteins belong to 6 families (TNF, chemokine, interferon, interleukin, TGF-beta and others) are given below with the first line indicating the protein ID.

**\*\*\*TNF**

>O54907

MAARRSQRRRGRRGEPGTALLAPLVLSLGLALACLGLLLVVVSLGSWATLSAQEPSQEELTAEDRREPPELNPQTEESQDVVPFLEQLVRPRRSAPKGRKARPRRAIAAHYEVHPRPGQDGAQAGVDGTVSGWEETKINSSSPLRYDRQIGEFTVIRAGLYYLYCQVHFDEGKAVYLKLDLLVNGVLALRCLEEFSATAASSPGPQLRLCQVSGLLPLRPGSSLRIRTLPWAHLKAAPFLTYFGLFQVH

>O55237

MPEEGRPCPWVRWSGTAFQRQWPWLLLVVFITVFCCWFHCSGLLSKQQQRLLEHPEPHTAELQLNLTVPRKDPTLRWGAGPALGRSFTHGPELEEGHLRIHQDGLYRLHIQVTLANCSSPGSTLQHRATLAVGICSPAAHGISLLRGRFGQDCTVALQRLTYLVHGDVLCTNLTLPLLPSRNADETFFGVQWICP

>O75888

MPASSPFLLAPKGPPGNMGGPVREPALSVALWLSWGAALGAVACAMALLTQQTELQSLRREVSRLQGTGGPSQNGEGYPWQSLPEQSSDALEAWENGERSRKRRAVLTQKQKKQHSVLHLVPINATSKDDSDVTEVMWQPALRRGRGLQAQGYGVRIQDAGVYLLYSQVLFQDVTFTMGQVVSREGQGRQETLFRCIRSMPSHPDRAYNSCYSAGVFHLHQGDILSVIIPRARAKLNLSPHGTFLGFVKL

>P32972

MEPGLQQAGSCGAPSPDPAMQVQPGSVASPWRSTRPWRSTSRSYFYLSTTALVCLVVAVAIILVLVVQKKDSTPNTTEKAPLKGGNCSEDLFCTLKSTPSKKSWAYLQVSKHLNNTKLSWNEDGTIHGLIYQDGNLIVQFPGLYFIVCQLQFLVQCSNHSVDLTLQLLINSKIKKQTLVTVCESGVQSKNIYQNLSQFLLHYLQVNSTISVRVDNFQYVDTNTFPLDNVLSVFLYSSSD

>P41273

MEYASDASLDPEAPWPPAPRARACRVLPWALVAGLLLLLLLAAACAVFLACPWAVSGARASPGSAASPRLREGPELSPDDPAGLLDLRQGMFAQLVAQNVLLIDGPLSWYSDPGLAGVSLTGGLSYKEDTKELVVAKAGVYYVFFQLELRRVVAGEGSGSVSLALHLQPLRSAAGAAALALTVDLPPASSEARNSAFGFQGRLLHLSAGQRLGVHLHTEARARHAWQLTQGATVLGLFRVTPEIPAGLPSPRSE

>P41274

MDQHTLDVEDTADARHPAGTSCPSDAALLRDTGLLADAALLSDTVRPTNAALPTDAAYPAVNVRDREAAWPPALNFCSRHPKLYGLVALVLLLLIAACVPIFTRTEPRPALTITTSPNLGTRENNADQVTPVSHIGCPNTTQQGSPVFAKLLAKNQASLCNTTLNWHSQDGAGSSYLSQGLRYEEDKKELVVDSPGLYYVFLELKLSPTFTNTGHKVQGWVSLVLQAKPQVDDFDNLALTVELFPCSMENKLVDRSWSQLLLLKAGHRLSVGLRAYLHGAQDAYRDWELSYPNTTSFGLFLVKPDNPWE

>P50592

MPSSGALKDLSFSQHFRMMVICIVLLQVLLQAVSVAVTYMYFTNEMKQLQDNYSKIGLACFSKTDEDFWDSTDGEILNRPCLQVKRQLYQLIEEVTLRTFQDTISTVPEKQLSTPPLPRGGRPQKVAAHITGITRRSNSALIPISKDGKTLGQKIESWESSRKGHSFLNHVLFRNGELVIEQEGLYYIYSQTYFRFQEAEDASKMVSKDKVRTKQLVQYIYKYTSYPDPIVLMKSARNSCWSRDAEYGLYSIYQGGLFELKKNDRIFVSVTNEHLMDLDQEASFFGAFLIN

>Q5UBV8

MAEELGLGFGEGVPVEVLPEGCRHRPEARAGLAARSKACLALTCCLLSFPILAGLSTLLMAGQLRVPGKDCMLRAITEERSEPSPQQVYSPPRGKPRAHLTIKKQTPAPHLKNQLSALHWEHDLGMAFTKNGMKYINKSLVIPESGDYFIYSQITFRGTTSVCGDISRGRRPNKPDSITVVITKVADSYPEPARLLTGSKSVCEISNNWFQSLYLGAMFSLEEGDRLMVNVSDISLVDYTKEDKTFFGAFLL

>Q7TS55

MEEMPLRESSPQRAERCKKSWLLCIVALLLMLLCSLGTLIYTSLKPTAIESCMVKFELSSSKWHMTSPKPHCVNTTSDGKLKILQSGTYLIYGQVIPVDKKYIKDNAPFVVQIYKKNDVLQTLMNDFQILPIGGVYELHAGDNIYLKFNSKDHIQKTNTYWGIILMPDLPFIS

>Q8JFG3

MGAYTTAPCDLEMGPEERTVVLIEKKSSTGWMWKVSVALLIAALCFAGVLLFAWYWNGKPEILIHSGQSEALTKKDHAEKTDPHSTLKRISSKAKAAIHLEGSYDEDEGLKDQVEWKNGQGQAFAQGGFRLVDNKIVIPHTGLYFVYSQASFRVSCSDGDEEGAGRHLTPLSHRISRYSESMGSDVSLMSAVRSACQNTAQEDSYSDGRGWYNTIYLGAVFQLNRGDKLETETNQLSELETDEGKTFFGVFAL

>Q8MUJ1

MTAETLKPFITPTSANDDGFPAKATSTATAQRRTRQLIPLVLGFIGLGLVVAILALTIWQTTRVSHLDKELKSLKRVVDNLQQRLGINYLDEFDEFQKEYENALIDYPKKVDGLTDEEDDDDGDGLDSIADDEDDDVSYSSVDDVGADYEDYTDMLNKLNNAHTGTTPTSETTAEGEGETDSASSASNDDNVFDDFTSYNAHKKKQERKSRSIADVRNEEQNIQGNHTELQEKSSNEATSKESPAPLHHRRRMHSRHRHLLVRKGESLLSARSEDSRPAAHFHLSSRRRHQGSMGYHGDMYIGNDNERNSYQGHFQTRDGVLTVTNTGLYYVYAQICYNNSHDQNGFIVFQGDTPFLQCLNTVPTNMPHKVHTCHTSGLIHLERNERIHLKDIHNDRNAVLREGNNRSYFGIFKV

>Q9BEA8

MQQPFNYPYPQIFWVDSSATSPWASPGSVFPCPASVPGRPGQRRPPPPPPPPPPPPTLLPSRPLPPLPPPSLKKKRDHNAGLCLLVMFFMVLVALVGLGLGMFQLFHLQKELTELRESASQRHTESSLEKQIGHPNLPSEKKELRKVAHLTGKPNSRSIPLEWEDTYGIALVSGVKYMKGSLVINDTGLYFVYSKVYFRGQYCNNQPLSHKVYTRNSRYPQDLVLMEGKMMNYCTTGQMWARSSYLGAVFNLTSADHLYVNVSELSLVNFEESKTFFGLYKL

>Q9ESE2

MRRANRDYGKYLRGSEEMGSCPGVPHEGPLHPAPSAPAPAPPPAASRFMFLALLGLGLGQVVCSIALFLYFRAQMDPNRISEDSTRCFYRILRLRENTGLQDSTLESEDTEALPDSCRRMKQAFQGAVQRELQHIVGPQRFSGVPAMMEGSWLDVARRGKPEAQPFAHLTINAADIPSGSHKVSLSSWYHDRGWAKISNMTLSNGKLRVNQDGFYYLYANICFRHHETSGSVPADYLQLMVYVVKTSIKIPSSHNLMKGGSTKNWSGNSEFHFYSINVGGFFKLRAGEEISVQVSNPSLLDPDQDATYFGAFKVQDID

>Q9JM10

MGALGLQGRGGRPQGTGCLLLAVAGATSLVTLLLAVPITVLAVLALVPQEQGGLVMESAGLGAQAQQGLSKSNGLPSRLHSQIPSSSKNPFLRPGALSSHGKHPWVATLPPIVASTPVPGFQQLQEEKPETDLSSRLPAAHLIGAWMKGQGLSWEAKKEEAFLRSGTQFSGAEGLALPQDGLYYLYCNVGYRGRAPPSGAGPQDRSVTLRSSLYRAGGAYGRGAPELLLEGAETVTPVLDRAGRPQYRPLWYTSVGFGGLVQLRRGERVYVNISHPDMVDYRRGKTFFGAVMVGLVPSASLGKCLHSANV

>Q9TSV8

AWITGQGLGWEAKKEEAFLRSGTQFSGAEGLALPQDGLYYLYCHVGYRGRAPPPGGDPLDRSVTLLSRLYRAGGAYGPGTPELLLEGAETVTPVLDPSRRHEYGPLWYTSVGFGGLVQLRRGERVYVNISHPDMVDYRRGKTFFGAVMVG

>Q9UNG2

MTLHPSPITCEFLFSTALISPKMCLSHLENMPLSHSRTQGAQRSSWKLWLFCSIVMLLFLCSFSWLIFIFLQLETAKEPCMAKFGPLPSKWQMASSEPPCVNKVSDWKLEILQNGLYLIYGQVAPNANYNDVAPFEVRLYKNKDMIQTLTNKSKIQNVGGTYELHVGDTIDLIFNSEHQVLKNNTYWGIILLANPQFIS

>Q9WU72

MDESAKTLPPPCLCFCSEKGEDMKVGYDPITPQKEEGAWFGICRDGRLLAATLLLALLSSSFTAMSLYQLAALQADLMNLRMELQSYRGSATPAAAGAPELTAGVKLLTPAAPRPHNSSRGHRNRRAFQGPEETEQDVDLSAPPAPCLPGCRHSQHDDNGMNLRNIIQDCLQLIADSDTPTIRKGTYTFVPWLLSFKRGNALEEKENKIVVRQTGYFFIYSQVLYTDPIFAMGHVIQRKKVHVFGDELSLVTLFRCIQNMPKTLPNNSCYSAGIARLEEGDEIQLAIPRENAQISRNGDDTFFGALKLL

>Q9Z2P3

MEGEGVQPPDENLENGSRPRFKWKKVLRLVVSGIKAAGLLLCVVYVCLQFSSSPAKDSPIQRLRAPVTGCEGGRLFIGTSKNEYETMEVQNNSVIINCDGLYLIHLKGSFFQEVKINLHFRKDRSPIFVPMLNNGQRVVFTVVTSLAFKDEVYLTVNASDTLCEHLQINDGELIIVQLTPNGYCAPERPYSSTVNQVPL

**\*\*\*Chemokine**

>B0R191

MKTLAAFLLLSCLIAGEVNGQDRSSRARCFCVDKGLNMVLLKNLDKVEIFPPSPSCNKHEIVVTLKNGAGQKCLNPDSKFTKNVVLKAIGKRMQQSVPHSTTTGTVKSSMTSSTSAPTAFK

>O00585

MAQSLALSLLILVLAFGIPRTQGSDGGAQDCCLKYSQRKIPAKVVRSYRKQEPSLGCSIPAILFLPRKRSQAELCADPKELWVQQLMQHLDKTPSPQKPAQGCRKDRGASKTGKKGKGSKGCKRTERSQTPKGP

>O15467

MKVSEAALSLLVLILIITSASRSQPKVPEWVNTPSTCCLKYYEKVLPRRLVVGYRKALNCHLPAIIFVTKRNREVCTNPNDDWVQEYIKDPNLPLLPTRNLSTVKIITAKNGQPQLLNSQ

>O43927

MKFISTSLLLMLLVSSLSPVQGVLEVYYTSLRCRCVQESSVFIPRRFIDRIQILPRGNGCPRKEIIVWKKNKSIVCVDPQAEWIQRMMEVLRKRSSSTLPVPVFKRKIP

>O70460

MAPRVTPLLAFSLLVLWTFPAPTLGGANDAEDCCLSVTQRPIPGNIVKAFRYLLNEDGCRVPAVVFTTLRGYQLCAPPDQPWVDRIIRRLKKSSAKNKGNSTRRSPVS

>O95715

MSLLPRRAPPVSMRLLAAALLLLLLALYTARVDGSKCKCSRKGPKIRYSDVKKLEMKPKYPHCEEKMVIITTKSVSRYRGQEHCLHPKLQSTKRFIKWYNAWNEKRRVYEE

>P02775

MSLRLDTTPSCNSARPLHALQVLLLLSLLLTALASSTKGQTKRNLAKGKEESLDSDLYAELRCMCIKTTSGIHPKNIQSLEVIGKGTHCNQVEVIATLKDGRKICLDPDAPRIKKIVQKKLAGDESAD

>P10148

MQVPVMLLGLLFTVAGWSIHVLAQPDAVNAPLTCCYSFTSKMIPMSRLESYKRITSSRCPKEAVVFVTKLKREVCADPKKEWVQTYIKNLDRNQMRSEPTTLFKTASALRSSAPLNVKLTRKSEANASTTFSTTTSSTSVGVTSVTVN

>P18340

MKSAVLFLLGIIFLEQCGVRGTLVIRNARCSCISTSRGTIHYKSLKDLKQFAPSPNCNKTEIIATLKNGDQTCLDPDSANVKKLMKEWEKKISQKKKQKRGKKHQKNMKNRKPKTPQSRRRSRKTT

>P21972

MQSNISIYVLTVIGSCFYNPFILTYECRDDCCNGRYGPVPAPWKVLNCTKTGPGCPDSGYLLTTSENKTYCITGNETDKGNYPQTIGAIFPNCSGMNVGAGRLITRMLEEYPRGKSPSNNSINNIKISC

>P21973

MYTRYKLSILFFVINFYNILCMPLSCETECCMAGKKYDDAAIDRDLCVLLCNLQYLASSNEGIGEILQCCLSSNYTSKTREDLRNCIAKCPPLPDRGCTGECCDLRENVDSLRANNPLGCCNDYTKVSSSSLNEDDVIDCRKSDASCEDRGYLLVRNNGSAVCIPENSKNDNIGFYFGSECSDLSRKG

>P30034

QEWSLPGTRVPPPADPEGGDANLRCVCVKTISGVSPKHISSLEVIGAGPHCPSPQLIATLKKGHKICLDPQNLLYKKIIKKLLKSQLLTA

>P30782

ALTELRCQCLQTVQGIHLKNIQNLKVLSPGPHCAQTEVIATLKSGQEACRNPAAPMVKKFLQKRLSNGNSS

>P50228

MSLQLRSSARIPSGSISPFMRMAPLAFLLLFTLPQHLAEAAPSSVIAATELRCVCLTVTPKINPKLIANLEVIPAGPQCPTVEVIAKLKNQKEVCLDPEAPVIKKIIQKILGSDKKKAKRNALAVERTASVQ

>P51670

MKPFHTALSFLILTTALGIWAQITHATETKEVQSSLKAQQGLEIEMFHMGFQDSSDCCLSYNSRIQCSRFIGYFPTSGGCTRPGIIFISKRGFQVCANPSDRRVQRCIERLEQNSQPRTYKQ

>P52460

MAIGFICSSPDAELFSEKSRMSSSVLLGCLLCCMDWSAAVPGKTEPFRKLFDAIMIKKLKSCSAAYPSDLDEGSMCDMADASPTSLELGLSKLDKES

>P82535

GPVAAVVRELRCVCLSTTAIHPKMIARLQVIAAGPQCSKVEVVASLKNGKEICLDPEAPLIKKAIQKILESGNKEN

>Q08782

MQRSSVLLCLLVIEATFCSLLMAQPDGVNTPTCCYTFNKQIPLKRVKGYERITSSRCPQEAVIFRTLKNKEVCADPTQKWVQDYIAKLDQRTQQKQNSTAPQTSKPLNIRFTTQDPKNRS

>Q1RMP9

MEEPQRARSQTVTTTASSFAENFSTTSSSFSYDREFLRTLPGLLIVAEIVLGLLVWTLIAGTEYFRVPAFGWVMFVAVFYWVLTVFFLIIYLTMTYTRIPQVPWTTVGLWFNGSAFALYLSAAIVDASSVSPERDSHNFNSWAASSFFAFLVTICYAGNTYFSFIAWRSRTIQ

>Q29RT9

MMLGRTSRLLLVLLFIAYATTSGNGNEGSKVGSCPCDHTVSSHSPPNENIMRHLRKYLKAYQRCFSYVRFQLPLKNVCGGSTDGWVQELMHCFDSGECGHAQPRVVDAPLHRTQLPEPTEAAPSDTATTSQTYLPSTLQRTQQPTPLEGALSLDSKLIPTHETTTYTSGHSLGAEPEAKENQKQLKENRGPQAGTSATVPVLSLLAIVFILAGVLLYVVCKRRKNQLLQHPPDLAASLYTCSRRTRAENGTL

>Q4PR21

MRPWLLACLVACFVGAWAPAIHAQGAFEDCCLAYHSHIKWRLLRRAHSYQRQDVSGSCNLPAVIFFFPQKDKMVCGKPGAKWVQFGMKILDNRNKKDSKPHHSGRRFFQGPQSGVRKLSSGTSRPLLLKFSGPTRSSKRKASLLTTAIPGP

>Q8IZ96

MDPEHAKPESSEAPSGNLKQPETAAALSLILGALACFIITQANESFITITSLEICIVVFFILIYVLTLHHLLTYLHWPLLDLTNSIITAVFLSVVAILAMQEKKRRHLLYVGGSLCLTAVIVCCIDAFVVTTKMRTNLKRFLGVEVERKLSPAKDAYPETGPDAPQRPA

>Q8TAZ6

MAPKAAKGAKPEPAPAPPPPGAKPEEDKKDGKEPSDKPQKAVQDHKEPSDKPQKAVQPKHEVGTRRGCRRYRWELKDSNKEFWLLGHAEIKIRSLGCLIAAMILLSSLTVHPILRLIITMEISFFSFFILLYSFAIHRYIPFILWPISDLFNDLIACAFLVGAVVFAVRSRRSMNLHYLLAVILIGAAGVFAFIDVCLQRNHFRGKKAKKHMLVPPPGKEKGPQQGKGPEPAKPPEPGKPPGPAKGKK

>Q8UUJ9

MDIRTLALLSILLGTLCLTEGKPVSLVYRCPCRYFESNVPKSNIKHLKILSTSNCSLQIVARLKHNGKQICLDPKTKWIQEYLEKALNKKAKKT

>Q96DZ9

MLSARDRRDRHPEEGVVAELQGFAVDKAFLTSHKGILLETELALTLIIFICFTASISAYMAAALLEFFITLAFLFLYATQYYQRFDRINWPCLLQGHGQSGGPHPLDLLSHSAKVQPQPWPGLTPPGWHTPAAVPWVPAPAPGFWSWLLWFICFHSLGSSDFLRCVSAIIIFLVVSFAAVTSRDGAAIAAFVFGIILVSIFAYDAFKIYRTEMAPGASQGDQQ

>Q96FZ5

MSHGAGLVRTTCSSGSALGPGAGAAQPSASPLEGLLDLSYPRTHAALLKVAQMVTLLIAFICVRSSLWTNYSAYSYFEVVTICDLIMILAFYLVHLFRFYRVLTCISWPLSELLHYLIGTLLLLIASIVAASKSYNQSGLVAGAIFGFMATFLCMASIWLSYKISCVTQSTDAAV

>Q99731

MALLLALSLLVLWTSPAPTLSGTNDAEDCCLSVTQKPIPGYIVRNFHYLLIKDGCRVPAVVFTTLRGRQLCAPPDQPWVERIIQRLQRTSAKMKRRSS

>Q99LJ5

MWPPDAEPEPDPESAHGPRSGRTVPGLRALLPARAFLCSLKGRLLLAESGLSFITFICYVVSSASAFLTVPLLEFLLAVYFLFADAMQLNDKWQGLCWPMMDFLRCVTAALIYFVISITAVAKYSDGAYKAAGVFGFFATIVFAIDFYLIFNEVAKFLKQGDSGNETTAHRTEEENSNSDSDSD

>Q9D6G9

MFSAWDRRERPPEEGAAAGLQGFGVDKTFLSSLKGILLETELALTFIIFICFTASISAYMAAALLEFLITLAFLFLCATQYYQRFDRLNWPCLDFLRCLSAIVIFLVVSFAAVTSREGAAIAAFVFGIILVSVFAYDAFKIYRTELMPSTTEGDQQ

>Q9DAC0

MAAPAPRARTGGKKKDERRGFKGYKWEFRDSNKDFWAQGHAECKSLIMILLIAAMVCFQRVATHPIVILLLTMELSICAFFFFLYSLAINRYIPFVFWPMMDLMNDLACSTFLIGGIFFALEARRELPVPYLTGMILMGVTAFISIIDLCLQRRQFKSRKLRKFILLTPDRKGKKQDPKLLLMLAAKEDEEERQRELAEKAKRESMDPGW

>Q9DAR1

MAAPIKFPFRPRGGQPREDTTPKRGLRRYLLELKESNKEFWLSGHAVFKLLSLGCMISALDYFETMLPHPVLILLICMEAAICIFFIFLNTLAINRYIPFVFWPMADIFNSLFSCVFLGGGIYFAFKARRLLPKPYLTAMILMGAAAICSFIDMLLQFQHFRGLRLRKW

>Q9DAS1

METPRPVVSRRPFCCTLKCFVKFLRLVVTVTSMIFFIVGQAPEPYIVITGFEVTVIFCFLVLYTCGLDKIMRSFFWPLLDVINSMVTALCMLIVSVLALIPETSTKTILGGVFGFLTVTCTIADCALMCQKLRFRPRQPYQKKSTNDIDDRE

>Q9H2A7

MGRDLRPGSRVLLLLLLLLLVYLTQPGNGNEGSVTGSCYCGKRISSDSPPSVQFMNRLRKHLRAYHRCLYYTRFQLLSWSVCGGNKDPWVQELMSCLDLKECGHAYSGIVAHQKHLLPTSPPISQASEGASSDIHTPAQMLLSTLQSTQRPTLPVGSLSSDKELTRPNETTIHTAGHSLAAGPEAGENQKQPEKNAGPTARTSATVPVLCLLAIIFILTAALSYVLCKRRRGQSPQSSPDLPVHYIPVAPDSNT

>Q9JIL2

MQQAGLTLMAVAVCVAFQTSEAILPMASSCCTEVSHHVSGRLLERVSSCSIQRADGDCDLAAVILHVKRRRICISPHNRTLKQWMRASEVKKNGRENVCSGKKQPSRKDRKGHTTRKHRTRGTHRHEASR

>Q9WUQ5

MRLLAAALLLLLLALCASRVDGSKCKCSRKGPKIRYSDVKKLEMKPKYPHCEEKMVIVTTKSMSRYRGQEHCLHPKLQSTKRFIKWYNAWNEKRRVYEE

>Q9WVL7

MAAQGWSMLLLAVLNLGIFVRPCDTQELRCLCIQEHSEFIPLKLIKNIMVIFETIYCNRKEVIAVPKNGSMICLDPDAPWVKATVGPITNRFLPEDLKQKEFPPAMKLLYSVEHEKPLYLSFGRPENKRIFPFPIRETSRHFADLAHNSDRNFLRDSSEVSLTGSDA

>Q9Z1X0

MMEGLSPASSLPLLLLLLSPAPEAALPLPSSTSCCTQLYRQPLPSRLLRRIVHMELQEADGDCHLQAVVLHLARRSVCVHPQNRSLARWLERQGKRLQGTVPSLNLVLQKKMYSHPQQQN

**\*\*\*Interferon**

>B5B3U4

MIAQNMTIFFWGVCLLTSGWATYSEASVPENLDKSIDELKAYYIKDDHEIHNAHPVFLRVLKDLKVNLEEPEQNLLMSIIMDTYSRIFTRMENDSLDEATKERIAHVQEHLKKLRENYFPGKSAELKTYAETLWAIKEDDPVIQRKALFELKRVYREATLLKNLKNKERRRRQAKNTKNLKS

>C8AW45

MYCRLNMVYLICALLLIVSLQGTVGARLPQSQKDKEQMLKNVREKIESLQKHYHTTGTEWFGKSVLSSHLHQLNSKASCTCQSLLLDSMLNITETIFQDMRGKAENEETKTSLRDVMTEVKMLRHKYSEEQKVWRELQDIHSVEVNNGKIQKGALNSFLILYDLAY

>H2N2P1

MMMMALMKVILCLWLTVTGVSASYVPQEMNKTIQNLLQHYKIPLVERFNGNPVFPKDSMDGNVEMKMIFMHGVLETYEDLIGHMLKQLPTASPPLGSNQDKPASPGTSNDDAAPVKADVRSKLMYILEKIQFLKTHRYQEQEKLLHRLQNLKKIQMDNRTVQSKALWELPQLFEKASSLADNTMRRRRRRQARNRMRLKA

>K9M1U5

MRPSVWAAVAAGLWVLCTVIAAAPRRCLLSHYRSLEPRTLAAAKALRDRYEEEALSWGQRNCSFRPRRDPPRPSSCARLRHVARGIADAQAVLSGLHRSELLPGAGPILELLAAAGRDVAACLELARPGSSRKVPGAQKRRHKPRRADSPRCRKASVVFNLLRLLTWELRLAAHSGPCL

>P56830

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>Q86WN2

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>Q8IU54

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>Q9TTB0

QDPYVKEAENLKKYFNAGHSDVADNGTLFLGILKNWKEESDRKIMQSQIVSFYFKLFKNFKDDQSIQKSVETIKEDMNVKFFNSNKKKRDDFEKLTNYSVTDLNVQRKAIHELIQVMAELSPAVKTGKRKRSQMLFRGRRASQ

**\*\*\*Interleukin**

>A0S0B0

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>A6N6I9

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>B0ZE70

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>O95760

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>P01583

MAKVPDMFEDLKNCYSENEEDSSSIDHLSLNQKSFYHVSYGPLHEGCMDQSVSLSISETSKTSKLTFKESMVVVATNGKVLKKRRLSLSQSITDDDLEAIANDSEEEIIKPRSAPFSFLSNVKYNFMRIIKYEFILNDALNQSIIRANDQYLTAAALHNLDEAVKFDMGAYKSSKDDAKITVILRISKTQLYVTAQDEDQPVLLKEMPEIPKTITGSETNLLFFWETHGTKNYFTSVAHPNLFIATKQDYWVCLAGGPPSITDFQILENQA

>P01586

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>P04351

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>P05112

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>P06740

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>P09920

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>P13232

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>P15247

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>P20808

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>P41693

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>P48411

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**\*\*\*Others**

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>O35793

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>O88593

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>P06744

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**\*\*\*TGF-beta**

>O60542

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>P03972

MPGPSLSLALVLSAMGALLRPGTPREEVFSTSALPREQATGSGALIFQQAWDWPLSSLWLPGSPLDPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLEAVRRTHWGLSDLTTFAVCPAGNGQPVLPHLQRLQAWLGEPGGRWLVVLHLEEVTWEPTPLLRFQEPPPGGASPPELALLVVYPGPGLEVTVTGAGLPGTQSLCLTADSDFLALVVDHPEGAWRRPGLALTLRRRGNGALLSTAQLQALLFGADSRCFTRKTPALLLLLPARSSAPMPAHGRLDLVPFPQPRASPEPEEAPPSADPFLETLTRLVRALAGPPARASPPRLALDPGALAGFPQGQVNLSDPAALERLLDGEEPLLLLLPPTAATTGVPATPQGPKSPLWAAGLARRVAAELQAVAAELRALPGLPPAAPPLLARLLALCPGNPDSPGGPLRALLLLKALQGLRAEWRGRERSGSARAQRSAGAAAADGPCALRELSVDLRAERSVLIPETYQANNCQGACGWPQSDRNPRYGNHVVLLLKMQARGATLARPPCCVPTAYTGKLLISLSEERISAHHVPNMVATECGCR

>P22004

MPGLGRRAQWLCWWWGLLCSCCGPPPLRPPLPAAAAAAAGGQLLGDGGSPGRTEQPPPSPQSSSGFLYRRLKTQEKREMQKEILSVLGLPHRPRPLHGLQQPQPPALRQQEEQQQQQQLPRGEPPPGRLKSAPLFMLDLYNALSADNDEDGASEGERQQSWPHEAASSSQRRQPPPGAAHPLNRKSLLAPGSGSGGASPLTSAQDSAFLNDADMVMSFVNLVEYDKEFSPRQRHHKEFKFNLSQIPEGEVVTAAEFRIYKDCVMGSFKNQTFLISIYQVLQEHQHRDSDLFLLDTRVVWASEEGWLEFDITATSNLWVVTPQHNMGLQLSVVTRDGVHVHPRAAGLVGRDGPYDKQPFMVAFFKVSEVHVRTTRSASSRRRQQSRNRSTQSQDVARVSSASDYNSSELKTACRKHELYVSFQDLGWQDWIIAPKGYAANYCDGECSFPLNAHMNATNHAIVQTLVHLMNPEYVPKPCCAPTKLNAISVLYFDDNSNVILKKYRNMVVRACGCH

>P34819

GKHNSAPMFMLDLYNAMAVEEGGGPAGQGFSYPYKAVFSTQGPPLASLQDSHFLTDADMVMSFVNLVEHDKEFFHPRYHHREFRFDLSKIPEGEAVTAAEFRIYKDYIRERFDNETFRISVYQVLQEHLGRESDLFLLDSRTLWASEEGWLVFDITATSNHWVVNPRHNLGLQLCVETLDGQSINPK

>P38440

DAGEAEEGLFTYVFQPSQHTRSRQVTSAQLWFHTGLDRQETAAANSSEPLLGLLVLTSGGPMPVPMSLGQAPPRWAVLHLATSAFPLLTHPVLALLLRCPLCSCSARPEATPFLVAHTRAKPPSGGERARRSTPPLPWPWSPAALRLLQRPPEEPAAHADCHRAALNISFQELGWDRWIVHPPSFIFYYCHGGCGLPTLQDLPLPVPGVPPTPFQPLSLVPGAQACCAALPGTMRPLRVRTTSDGGYSFKYEMVPNLLTQHCACI

>P43021

MSAHSLRILLLQACWALLHPRAPTAAALPLWTRGQPSSPSPLAYMLSLYRDPLPRADIIRSLQAQDVDVTGQNWTFTFDFSFLSQEEDLVWAELRLQLPGPMDIPTEGPLTIDIFHQAKGDPERDPADCLERIWMETFTVIPSQVTFASGSTVLEVTKPLSKWLKDPRALEKQVSSRAEKCWHQPYTPPVPVASTNVLMLYSNRPQEQRQLGGATLLWEAESSWRAQEGQLSVERGGWGRRQRRHHLPDRSQLCRRVKFQVDFNLIGWGSWIIYPKQYNAYRCEGECPNPVGEEFHPTNHAYIQSLLKRYQPHRVPSTCCAPVKTKPLSMLYVDNGRVLLEHHKDMIVEECGCL

>P43026

MRLPKLLTFLLWYLAWLDLEFICTVLGAPDLGQRPQGTRPGLAKAEAKERPPLARNVFRPGGHSYGGGATNANARAKGGTGQTGGLTQPKKDEPKKLPPRPGGPEPKPGHPPQTRQATARTVTPKGQLPGGKAPPKAGSVPSSFLLKKAREPGPPREPKEPFRPPPITPHEYMLSLYRTLSDADRKGGNSSVKLEAGLANTITSFIDKGQDDRGPVVRKQRYVFDISALEKDGLLGAELRILRKKPSDTAKPAAPGGGRAAQLKLSSCPSGRQPASLLDVRSVPGLDGSGWEVFDIWKLFRNFKNSAQLCLELEAWERGRAVDLRGLGFDRAARQVHEKALFLVFGRTKKRDLFFNEIKARSGQDDKTVYEYLFSQRRKRRAPLATRQGKRPSKNLKARCSRKALHVNFKDMGWDDWIIAPLEYEAFHCEGLCEFPLRSHLEPTNHAVIQTLMNSMDPESTPPTCCVPTRLSPISILFIDSANNVVYKQYEDMVVESCGCR

>P48969

MEYSRKTYLDLNIMAKYILILSLFFGPGLSWDVFYSGDEDQLSLARERRAANYNPSPHMSTWERNEIQQEILNILGLQHRPRPPSLRGGQNQFCAQFTEWSYYRTLNIDEQSGHPSETEPQPGGLASNAIYNSPDSSGIGSVMSGTVFNYTRNEVQAVSQADTIMSLPVHYKDAAIEDTEHRYRFDIGRIPQGETVTSAELRVFRDAGRQGRSLYRIDVLLLRERGSDGSRSPVYLDSTIVGAGDHGWLVFDMTSATSTWRSYPGANVGLQLRVESLQGLNIDPTDAGVVGVGNNEGREPFMVVFFQRNEEVIATNSHLRRNRRAATRQKKGGKRPRKPDTDNDIASRDSASSLNSDWQCKRKNLFVNFEDLDWQEWIIAPLGYVAFYCQGECAFPLNGHANATNHAIVQTLVHHMSPSHVPQPCCAPTKLSPITVLYYDDSRNVVLKKYKNMVVRACGCL

>P55101

MVPPLPLLLLLLLVPQGGHGCQGSELDREIVLAKVRALFLDALGPPAVTGEGGDPGVRRLPRRHALGGFARRGSEPEEEDVSQAILFPASGSRCEDEPAAGELAQEAEQGLFTYMFRPSQHMRSRQVTSAHLWFHTGLDRQGTAASNSSEPLLGLLALSSGGPMAVPVTLGQAPPCWAVLHLAASALPLLTHPVLVLLLRCPLCSCSARPEATPFLVAHTRARPPSGGERTRRSTPPLPWPWSPAALRLLQRPPEEPAAHANCHRAALNISFQELGWDRWIVHPRSFIFHYCHGGCGLSAPPDLPLPVPEVPPTPIQPLSLVPGAQPCCAALPGTMRPLRVRTTSDGGYSFKYEIVPNLLTQHCACI

>P55106

MDTSRVLLSAVFLISFLWDLPGFQQASISSSSSSAELGSAKGMRSRKEGRMPRAPRENATAREPLDRQEPPPRPQEEPQRRPPQQPEAREPPGRGPRVVPHEYMLSIYRTYSIAEKLGINASFFQSSKSANTITSFVDRGLDDLSHTPLRRQKYLFDVSTLSDKEELVGAELRLFRQAPAAPWGPPAGPLRLQLFACQSPLLLEARSLDPQGAPRPGWEVFDVWRGLRPQPWKQLCLELRAAWGGEPGAAEDEARAPGPQQPPPPDLRSLGFGRRVRTPQERALLVVFSRSQRKTLFAEMREQLGSATEVVGPGGGAEGSGPPPPPPPPPPSGTPDAGLWSPSPGRRRRRTAFASRHGKRHGKKSRLRCSKKPLHVNFKELGWDDWIIAPLEYEAYHCEGVCDFPLRSHLEPTNHAIIQTLMNSMDPGSTPPSCCVPTKLTPISILYIDAGNNVVYKQYEEMVVESCGCR

>P55107

MAHVPARTSPGPGPQLLLLLLPLFLLLLRDVAGSHRAPAWSALPAAADGLQGDRDLQRHPGDAAATLGPSAQDMVAVHMHRLYEKYSRQGARPGGGNTVRSFRARLEVVDQKAVYFFNLTSMQDSEMILTATFHFYSEPPRWPRALEVLCKPRAKNASGRPLPLGPPTRQHLLFRSLSQNTATQGLLRGAMALAPPPRGLWQAKDISPIVKAARRDGELLLSAQLDSEERDPGVPRPSPYAPYILVYANDLAISEPNSVAVTLQRYDPFPAGDPEPRAAPNNSADPRVRRAAQATGPLQDNELPGLDERPPRAHAQHFHKHQLWPSPFRALKPRPGRKDRRKKGQEVFMAASQVLDFDEKTMQKARRKQWDEPRVCSRRYLKVDFADIGWNEWIISPKSFDAYYCAGACEFPMPKIVRPSNHATIQSIVRAVGIIPGIPEPCCVPDKMNSLGVLFLDENRNVVLKVYPNMSVDTCACR

>P91699

MRAWILLLAVLATSQPIVQVASTEDTSISQRFIAAIAPTRTEPSAASAAAAAATATATATATTALAKAFNPFNELLYKSSDSDSDNNNNNYKNRNNNNNNLNKGPRNNKNKGNKHSKSDANRQFNEVHKPRTDQLENSKNKPKQLVNKTNKMAVKDQKHHQPQQQQQQHHKPATTTALTSTESHQSPIETIFVDDPALALEEEVASINVPANAGAIIEEQEPSTYSKKELIKDKLKPDPSTLVEIENSLLSLFNMKRPPKIDRSKIIIPEAMKKLYAEIMGHELDSVNIPRPGLLTKSANTVRSFTHKDSKIDDRFPHHHRFRLHFDVKSIPAEEKLKAAELQLTRDALAQAAVASTSANRTRYQVLVYDITRVGVRGQREPSYLLLDTKTVRLNSTDTVSLDVQPAVDRWLATPQKNYGLLVEVRTMRSLKPAPHHHVRLRRSADEAHEQWQHKQPLLFAYTDDGRHKARSIRDVSGGGGGGGGAGEGGKGNGGGRNRRHQRRPARRKNHEETCRRHSLYVDFADVGWDDWIVAPPGYDAYYCHGKCPFPLADHFNSTNHAVVQTLVNNLNPGKVPKACCVPTQLDSVAMLYLNDQSTVVLKNYQEMTVVGCGCR

>Q6AYE8

MELGLGEPTALSHCLRPRWQPALWPTLAALALLSSVTEASLDPMSRSPASRDVPSPVLAPPTDYLPGGHTAHLCSERALRPPPQSPQPAPPPPGPALQSPPAALRGARAARAGTRSSRARATDARGCRLRSQLVPVSALGLGHSSDELIRFRFCSGSCRRARSPHDLSLASLLDAGALRSPPGSRPISQPCCRPTRYEAVSFMDVNSTWRTVDHLSATACGCLG

>Q90XB8

MHLYFSCFILLFVPGGKSLGINSHLKHMSNKSQDQVNRTRTVGSKDVAALPLSSYMFNLYQSFHHSELNHGMEAAPSLSLNHRADIIRSLAVKSYDHGGSLWTFLFDFSSLSQEEEHQFAEVRFDFRAFSDAILVGMEVIVDFFHQSSTCQSISGFCQSYLYVGSLTSTLWPRSSDTWVTFEATDIIHKWFERNDKGKNHSEGHMKQPKKLHRAKSAERRYQQRSTENPQILMMVYSNISKKEKLSGTATLLQDAAHSKYLAVMPGIQTIANSRRHRRSHIFNEHIMGMKHVPSADSSRTLCRRVDFFVDFKQIGWDSWIIHPVKYNAYRCEGECPSPVNERLKPNNHAYMQ

>Q98TU0

MKLWDILATCLLLLSSVSTRPLFHKLQPSKRAVVRSESPALDPIIDSQPETSNPKQASMEEQYDLTGLYPEQFEDVMDFIEATLGRLRRSSDVEPQMKRDRVRQKAAANTEKSGGRGRGERKRSRGRARSRDDRVKGQGRGCLLKEIHLNVTDLDLGYRTKEELIFRYCSGPCHDAETNYDKILNNLTHNKKLDKDTPSRTCCRPIAFDDDISFLDDSLEYHTLKKHSAKKCACV

In this study, we randomly divided 151 surveyed sequences into cross-validation data and independent data for building and testing the models, respectively. We repeated this with process for 10 times when keeping the same sequence number distributions over these two parts. This means that all our experiments were carried out on 10 different datasets. The protein IDs of sequences used in 10 experiments are given below

\*\*Experiment 1

---Cross-validation data ---

O54907; O75888; P32972; P41273; P41274; P50592; Q5UBV8; Q8JFG3; Q8MUJ1; Q9BEA8; Q9ESE2; Q9TSV8; Q9UNG2; Q9WU72; A0S0B0; A6N6I9; A9JSE7; B0R191; C8AW45; H2N2P1; K9M1U5; M0R7X9; O00585; O35793; O43927; O55233; O60542; O61643; O62757; O70460; O88593; O95760; P01583; P01586; P03972; P04351; P05112; P06740; P06744; P09056; P10148; P13232; P15247; P15514; P20808; P21972; P21973; P22004; P22800; P30251; P34819; P35225; P35834; P38440; P41693; P42706; P43021; P43026; P43490; P50228; P51670; P52460; P53347; P55107; P56830; P58499; P81013; P81530; P83714; P91699; Q08782; Q13007; Q1RMP9; Q27913; Q29RT9; Q4PR21; Q60480; Q61728; Q6DF53; Q6ZMJ4; Q80XG2; Q86WN2; Q8IU54; Q8IZ96; Q8NEV9; Q8QFQ8; Q8TAZ6; Q8UUJ9; Q90XB8; Q91Z84; Q920D7; Q96DZ9; Q96FZ5; Q98TU0; Q99731; Q99LJ5; Q9D6G9; Q9DAR1; Q9DAS1; Q9GZX6; Q9H293; Q9H2A7; Q9JI24; Q9JIL2; Q9JLA2; Q9MZR1; Q9NZH7; Q9NZH8; Q9P0M4; Q9QXT6; Q9QYY1; Q9QZM3; Q9WUQ5; Q9WVL7; Q9XT91; Q9YGD3; Q9Z1X0;

--- Independent text data ---

O55237; Q7TS55; Q9JM10; Q9Z2P3; B0ZE70; B5B3U4; O15467; O95715; P02775; P08721; P09920; P18340; P28797; P30034; P30253; P30255; P30782; P40226; P48411; P48969; P55101; P55106; P82535; Q6AYE8; Q8R460; Q8TAD2; Q90YI0; Q9D6Z6; Q9DAC0; Q9HBE4; Q9NPH9; Q9NZH6; Q9TTB0; Q9VAK8;

\*\*Experiment 2

---Cross-validation data ---

O54907; O55237; O75888; P32972; P41273; P50592; Q5UBV8; Q7TS55; Q8JFG3; Q9ESE2; Q9JM10; Q9TSV8; Q9UNG2; Q9WU72; A0S0B0; A9JSE7; B5B3U4; H2N2P1; K9M1U5; M0R7X9; O00585; O43927; O55233; O60542; O61643; O62757; O70460; O88593; O95715; O95760; P01583; P01586; P02775; P04351; P05112; P06740; P06744; P08721; P09920; P10148; P13232; P15247; P15514; P18340; P20808; P21972; P28797; P30034; P30251; P30255; P34819; P35225; P35834; P38440; P40226; P41693; P42706; P43490; P48411; P48969; P50228; P51670; P52460; P53347; P55101; P55106; P55107; P56830; P81530; P82535; P91699; Q08782; Q13007; Q1RMP9; Q27913; Q4PR21; Q60480; Q6AYE8; Q6DF53; Q6ZMJ4; Q80XG2; Q86WN2; Q8IZ96; Q8NEV9; Q8QFQ8; Q8R460; Q8TAD2; Q8TAZ6; Q8UUJ9; Q90XB8; Q90YI0; Q920D7; Q96DZ9; Q98TU0; Q99731; Q9D6G9; Q9D6Z6; Q9DAC0; Q9DAR1; Q9DAS1; Q9GZX6; Q9H293; Q9H2A7; Q9HBE4; Q9JI24; Q9JIL2; Q9JLA2; Q9MZR1; Q9NPH9; Q9NZH8; Q9QXT6; Q9QYY1; Q9TTB0; Q9VAK8; Q9WUQ5; Q9YGD3; Q9Z1X0;

--- Independent text data ---

P41274; Q8MUJ1; Q9BEA8; Q9Z2P3; A6N6I9; B0R191; B0ZE70; C8AW45; O15467; O35793; P03972; P09056; P21973; P22004; P22800; P30253; P30782; P43021; P43026; P58499; P81013; P83714; Q29RT9; Q61728; Q8IU54; Q91Z84; Q96FZ5; Q99LJ5; Q9NZH6; Q9NZH7; Q9P0M4; Q9QZM3; Q9WVL7; Q9XT91;

\*\*Experiment 3

---Cross-validation data ---

O54907; O75888; P32972; P41273; P41274; P50592; Q5UBV8; Q7TS55; Q9BEA8; Q9JM10; Q9TSV8; Q9UNG2; Q9WU72; Q9Z2P3; A0S0B0; A6N6I9; B0R191; B5B3U4; H2N2P1; M0R7X9; O00585; O15467; O35793; O43927; O55233; O61643; O62757; O70460; O88593; O95715; O95760; P01583; P02775; P03972; P04351; P05112; P06740; P06744; P08721; P09056; P09920; P13232; P15514; P18340; P20808; P22004; P22800; P28797; P30034; P30253; P30255; P30782; P34819; P35225; P35834; P38440; P40226; P41693; P43021; P43026; P48411; P50228; P51670; P52460; P53347; P55101; P55106; P56830; P81013; P81530; P82535; P91699; Q08782; Q13007; Q1RMP9; Q29RT9; Q60480; Q61728; Q6AYE8; Q6DF53; Q6ZMJ4; Q80XG2; Q86WN2; Q8IU54; Q8IZ96; Q8NEV9; Q8QFQ8; Q8TAD2; Q8UUJ9; Q90XB8; Q90YI0; Q91Z84; Q920D7; Q96DZ9; Q99731; Q99LJ5; Q9D6G9; Q9D6Z6; Q9DAR1; Q9H2A7; Q9HBE4; Q9JI24; Q9JIL2; Q9JLA2; Q9NPH9; Q9NZH6; Q9NZH7; Q9NZH8; Q9P0M4; Q9QZM3; Q9TTB0; Q9VAK8; Q9WUQ5; Q9WVL7; Q9XT91; Q9YGD3; Q9Z1X0;

--- Independent text data ---

O55237; Q8JFG3; Q8MUJ1; Q9ESE2; A9JSE7; B0ZE70; C8AW45; K9M1U5; O60542; P01586; P10148; P15247; P21972; P21973; P30251; P42706; P43490; P48969; P55107; P58499; P83714; Q27913; Q4PR21; Q8R460; Q8TAZ6; Q96FZ5; Q98TU0; Q9DAC0; Q9DAS1; Q9GZX6; Q9H293; Q9MZR1; Q9QXT6; Q9QYY1;

\*\*Experiment 4

---Cross-validation data ---

O55237; O75888; P32972; P50592; Q5UBV8; Q7TS55; Q8JFG3; Q9BEA8; Q9ESE2; Q9JM10; Q9TSV8; Q9UNG2; Q9WU72; Q9Z2P3; A6N6I9; B0R191; B0ZE70; C8AW45; K9M1U5; M0R7X9; O15467; O35793; O43927; O55233; O60542; O61643; O62757; O70460; O88593; O95715; O95760; P01583; P01586; P02775; P03972; P05112; P06744; P08721; P09056; P09920; P10148; P13232; P15247; P15514; P18340; P20808; P21972; P21973; P22004; P22800; P30251; P30253; P30255; P30782; P35225; P35834; P38440; P40226; P41693; P42706; P43021; P48411; P48969; P50228; P51670; P52460; P53347; P55107; P56830; P58499; P81013; P82535; P83714; P91699; Q08782; Q29RT9; Q4PR21; Q60480; Q61728; Q6AYE8; Q6DF53; Q80XG2; Q86WN2; Q8IU54; Q8IZ96; Q8NEV9; Q8QFQ8; Q8R460; Q8TAD2; Q8TAZ6; Q90XB8; Q90YI0; Q91Z84; Q96FZ5; Q98TU0; Q99731; Q9D6G9; Q9DAC0; Q9DAR1; Q9DAS1; Q9GZX6; Q9H293; Q9HBE4; Q9JIL2; Q9JLA2; Q9NPH9; Q9NZH6; Q9NZH7; Q9NZH8; Q9QXT6; Q9QYY1; Q9TTB0; Q9VAK8; Q9WUQ5; Q9XT91; Q9YGD3; Q9Z1X0;

--- Independent text data ---

O54907; P41273; P41274; Q8MUJ1; A0S0B0; A9JSE7; B5B3U4; H2N2P1; O00585; P04351; P06740; P28797; P30034; P34819; P43026; P43490; P55101; P55106; P81530; Q13007; Q1RMP9; Q27913; Q6ZMJ4; Q8UUJ9; Q920D7; Q96DZ9; Q99LJ5; Q9D6Z6; Q9H2A7; Q9JI24; Q9MZR1; Q9P0M4; Q9QZM3; Q9WVL7;

\*\*Experiment 5

---Cross-validation data ---

O54907; O55237; O75888; P32972; P41274; P50592; Q7TS55; Q8JFG3; Q8MUJ1; Q9BEA8; Q9ESE2; Q9JM10; Q9TSV8; Q9WU72; A0S0B0; A6N6I9; A9JSE7; B0ZE70; B5B3U4; C8AW45; M0R7X9; O00585; O35793; O43927; O62757; O70460; O95715; O95760; P01583; P01586; P02775; P03972; P08721; P09920; P10148; P13232; P15247; P15514; P18340; P20808; P21972; P21973; P22004; P22800; P28797; P30034; P30251; P30255; P30782; P34819; P35225; P35834; P40226; P41693; P42706; P43021; P43490; P48969; P50228; P52460; P53347; P55101; P55106; P55107; P56830; P58499; P81013; P81530; P82535; P83714; P91699; Q08782; Q13007; Q1RMP9; Q27913; Q29RT9; Q4PR21; Q60480; Q61728; Q6AYE8; Q6ZMJ4; Q80XG2; Q86WN2; Q8IU54; Q8IZ96; Q8NEV9; Q8QFQ8; Q8R460; Q8TAD2; Q8UUJ9; Q90XB8; Q90YI0; Q920D7; Q96DZ9; Q98TU0; Q99731; Q9D6G9; Q9D6Z6; Q9DAC0; Q9DAR1; Q9DAS1; Q9GZX6; Q9HBE4; Q9JI24; Q9JLA2; Q9MZR1; Q9NZH7; Q9P0M4; Q9QXT6; Q9QYY1; Q9TTB0; Q9VAK8; Q9WUQ5; Q9WVL7; Q9XT91; Q9YGD3; Q9Z1X0;

--- Independent text data ---

P41273; Q5UBV8; Q9UNG2; Q9Z2P3; B0R191; H2N2P1; K9M1U5; O15467; O55233; O60542; O61643; O88593; P04351; P05112; P06740; P06744; P09056; P30253; P38440; P43026; P48411; P51670; Q6DF53; Q8TAZ6; Q91Z84; Q96FZ5; Q99LJ5; Q9H293; Q9H2A7; Q9JIL2; Q9NPH9; Q9NZH6; Q9NZH8; Q9QZM3;

\*\*Experiment 6

---Cross-validation data ---

O54907; O55237; P32972; P41274; P50592; Q5UBV8; Q7TS55; Q8JFG3; Q8MUJ1; Q9BEA8; Q9ESE2; Q9JM10; Q9TSV8; Q9WU72; A0S0B0; A6N6I9; A9JSE7; B0R191; B0ZE70; B5B3U4; H2N2P1; K9M1U5; O35793; O43927; O55233; O61643; O62757; O95715; O95760; P01583; P01586; P02775; P03972; P04351; P05112; P06744; P08721; P09056; P10148; P13232; P15247; P18340; P21972; P21973; P22004; P22800; P28797; P30034; P30251; P30253; P30255; P34819; P35225; P35834; P38440; P40226; P42706; P43021; P43026; P48411; P50228; P51670; P52460; P53347; P55106; P55107; P56830; P58499; P81013; P91699; Q08782; Q1RMP9; Q27913; Q29RT9; Q4PR21; Q60480; Q61728; Q6AYE8; Q6DF53; Q6ZMJ4; Q80XG2; Q8IU54; Q8QFQ8; Q8TAD2; Q8TAZ6; Q8UUJ9; Q90XB8; Q90YI0; Q91Z84; Q920D7; Q96DZ9; Q96FZ5; Q99731; Q99LJ5; Q9D6G9; Q9D6Z6; Q9DAC0; Q9DAR1; Q9DAS1; Q9GZX6; Q9H293; Q9H2A7; Q9HBE4; Q9JI24; Q9JIL2; Q9JLA2; Q9MZR1; Q9NPH9; Q9NZH7; Q9P0M4; Q9QXT6; Q9QYY1; Q9QZM3; Q9TTB0; Q9WUQ5; Q9XT91; Q9YGD3;

--- Independent text data ---

O75888; P41273; Q9UNG2; Q9Z2P3; C8AW45; M0R7X9; O00585; O15467; O60542; O70460; O88593; P06740; P09920; P15514; P20808; P30782; P41693; P43490; P48969; P55101; P81530; P82535; P83714; Q13007; Q86WN2; Q8IZ96; Q8NEV9; Q8R460; Q98TU0; Q9NZH6; Q9NZH8; Q9VAK8; Q9WVL7; Q9Z1X0;

\*\*Experiment 7

---Cross-validation data ---

O55237; O75888; P41273; P41274; P50592; Q5UBV8; Q7TS55; Q9BEA8; Q9ESE2; Q9JM10; Q9TSV8; Q9UNG2; Q9WU72; Q9Z2P3; A0S0B0; A6N6I9; A9JSE7; B0R191; B0ZE70; B5B3U4; C8AW45; H2N2P1; K9M1U5; M0R7X9; O15467; O35793; O43927; O55233; O60542; O61643; O62757; O70460; O88593; O95715; O95760; P01583; P01586; P03972; P04351; P05112; P06744; P08721; P09056; P09920; P10148; P13232; P15247; P15514; P20808; P21972; P21973; P22004; P22800; P30034; P30782; P34819; P35225; P35834; P38440; P40226; P43021; P43026; P43490; P48411; P50228; P51670; P52460; P53347; P55106; P55107; P58499; P81013; P81530; P83714; Q08782; Q13007; Q1RMP9; Q27913; Q4PR21; Q60480; Q6AYE8; Q6DF53; Q80XG2; Q8IU54; Q8IZ96; Q8NEV9; Q8R460; Q8TAD2; Q8TAZ6; Q8UUJ9; Q90XB8; Q90YI0; Q91Z84; Q96DZ9; Q96FZ5; Q99731; Q9D6G9; Q9D6Z6; Q9DAC0; Q9DAR1; Q9DAS1; Q9H293; Q9H2A7; Q9HBE4; Q9JI24; Q9JLA2; Q9MZR1; Q9NPH9; Q9NZH8; Q9QXT6; Q9QYY1; Q9QZM3; Q9TTB0; Q9VAK8; Q9WUQ5; Q9YGD3; Q9Z1X0;

--- Independent text data ---

O54907; P32972; Q8JFG3; Q8MUJ1; O00585; P02775; P06740; P18340; P28797; P30251; P30253; P30255; P41693; P42706; P48969; P55101; P56830; P82535; P91699; Q29RT9; Q61728; Q6ZMJ4; Q86WN2; Q8QFQ8; Q920D7; Q98TU0; Q99LJ5; Q9GZX6; Q9JIL2; Q9NZH6; Q9NZH7; Q9P0M4; Q9WVL7; Q9XT91;

\*\*Experiment 8

---Cross-validation data ---

O54907; O55237; O75888; P32972; P41273; P50592; Q5UBV8; Q7TS55; Q8JFG3; Q8MUJ1; Q9BEA8; Q9ESE2; Q9UNG2; Q9Z2P3; A0S0B0; A6N6I9; A9JSE7; B5B3U4; C8AW45; H2N2P1; M0R7X9; O00585; O15467; O35793; O43927; O60542; O61643; O62757; O95760; P01583; P01586; P02775; P03972; P05112; P06740; P06744; P09056; P09920; P10148; P13232; P15247; P15514; P18340; P20808; P21972; P21973; P22800; P28797; P30034; P30251; P30253; P30255; P30782; P34819; P35225; P35834; P38440; P40226; P41693; P43021; P43026; P43490; P50228; P51670; P53347; P55101; P55106; P56830; P58499; P83714; P91699; Q08782; Q1RMP9; Q27913; Q29RT9; Q4PR21; Q6AYE8; Q6DF53; Q6ZMJ4; Q80XG2; Q8IU54; Q8IZ96; Q8NEV9; Q8QFQ8; Q8R460; Q8TAD2; Q8UUJ9; Q90YI0; Q91Z84; Q920D7; Q96DZ9; Q96FZ5; Q98TU0; Q99731; Q99LJ5; Q9D6G9; Q9D6Z6; Q9DAC0; Q9DAR1; Q9DAS1; Q9GZX6; Q9JI24; Q9JIL2; Q9JLA2; Q9MZR1; Q9NZH6; Q9NZH7; Q9P0M4; Q9QXT6; Q9QYY1; Q9QZM3; Q9TTB0; Q9VAK8; Q9WUQ5; Q9XT91; Q9YGD3; Q9Z1X0;

--- Independent text data ---

P41274; Q9JM10; Q9TSV8; Q9WU72; B0R191; B0ZE70; K9M1U5; O55233; O70460; O88593; O95715; P04351; P08721; P22004; P42706; P48411; P48969; P52460; P55107; P81013; P81530; P82535; Q13007; Q60480; Q61728; Q86WN2; Q8TAZ6; Q90XB8; Q9H293; Q9H2A7; Q9HBE4; Q9NPH9; Q9NZH8; Q9WVL7;

\*\*Experiment 9

---Cross-validation data ---

O54907; O75888; P41273; P41274; P50592; Q5UBV8; Q7TS55; Q8MUJ1; Q9BEA8; Q9ESE2; Q9TSV8; Q9UNG2; Q9WU72; Q9Z2P3; A0S0B0; A6N6I9; A9JSE7; B0R191; B0ZE70; B5B3U4; H2N2P1; K9M1U5; M0R7X9; O00585; O15467; O43927; O61643; O62757; O88593; O95715; O95760; P01586; P02775; P05112; P06744; P08721; P09056; P09920; P10148; P13232; P15247; P15514; P18340; P20808; P21972; P21973; P22004; P22800; P28797; P30251; P30255; P34819; P35834; P42706; P43026; P43490; P48411; P48969; P50228; P51670; P52460; P53347; P55101; P55106; P55107; P56830; P58499; P81013; P82535; P83714; P91699; Q08782; Q13007; Q1RMP9; Q29RT9; Q61728; Q6AYE8; Q6DF53; Q6ZMJ4; Q80XG2; Q86WN2; Q8IU54; Q8QFQ8; Q8R460; Q8TAD2; Q8TAZ6; Q8UUJ9; Q90XB8; Q90YI0; Q920D7; Q96DZ9; Q96FZ5; Q98TU0; Q99731; Q99LJ5; Q9DAC0; Q9DAR1; Q9DAS1; Q9GZX6; Q9H293; Q9H2A7; Q9JI24; Q9JIL2; Q9JLA2; Q9MZR1; Q9NPH9; Q9NZH6; Q9NZH7; Q9NZH8; Q9P0M4; Q9QXT6; Q9QYY1; Q9QZM3; Q9VAK8; Q9WVL7; Q9XT91; Q9YGD3;

--- Independent text data ---

O55237; P32972; Q8JFG3; Q9JM10; C8AW45; O35793; O55233; O60542; O70460; P01583; P03972; P04351; P06740; P30034; P30253; P30782; P35225; P38440; P40226; P41693; P43021; P81530; Q27913; Q4PR21; Q60480; Q8IZ96; Q8NEV9; Q91Z84; Q9D6G9; Q9D6Z6; Q9HBE4; Q9TTB0; Q9WUQ5; Q9Z1X0;

\*\*Experiment 10

---Cross-validation data ---

O75888; P32972; P41273; P41274; P50592; Q5UBV8; Q7TS55; Q8JFG3; Q9BEA8; Q9ESE2; Q9JM10; Q9UNG2; Q9WU72; Q9Z2P3; A0S0B0; B0R191; B0ZE70; B5B3U4; C8AW45; H2N2P1; M0R7X9; O35793; O55233; O60542; O61643; O62757; O70460; O95715; O95760; P01583; P02775; P03972; P04351; P05112; P06740; P06744; P08721; P09056; P09920; P10148; P15247; P15514; P18340; P20808; P21973; P22800; P30034; P30251; P30253; P30255; P30782; P34819; P35225; P35834; P40226; P41693; P43021; P43490; P48411; P50228; P51670; P52460; P53347; P55101; P55106; P55107; P58499; P81530; P83714; P91699; Q08782; Q13007; Q1RMP9; Q27913; Q29RT9; Q4PR21; Q60480; Q61728; Q6AYE8; Q80XG2; Q86WN2; Q8IU54; Q8IZ96; Q8QFQ8; Q8R460; Q8TAZ6; Q90XB8; Q90YI0; Q920D7; Q96DZ9; Q96FZ5; Q98TU0; Q99731; Q99LJ5; Q9D6G9; Q9D6Z6; Q9DAC0; Q9DAS1; Q9GZX6; Q9H293; Q9H2A7; Q9HBE4; Q9JI24; Q9JIL2; Q9MZR1; Q9NPH9; Q9NZH6; Q9NZH7; Q9NZH8; Q9P0M4; Q9QXT6; Q9QZM3; Q9TTB0; Q9VAK8; Q9WUQ5; Q9YGD3; Q9Z1X0;

--- Independent text data ---

O54907; O55237; Q8MUJ1; Q9TSV8; A6N6I9; A9JSE7; K9M1U5; O00585; O15467; O43927; O88593; P01586; P13232; P21972; P22004; P28797; P38440; P42706; P43026; P48969; P56830; P81013; P82535; Q6DF53; Q6ZMJ4; Q8NEV9; Q8TAD2; Q8UUJ9; Q91Z84; Q9DAR1; Q9JLA2; Q9QYY1; Q9WVL7; Q9XT91;