FIG. 1A

```
Signal peptide
Human  -19 MQIELSTCFF LCLLRFCFS
Pig         MQLELSTCVF LCLLPLGFS
Mouse       MQIALFACFF LSLFNFCSS
            **  *  * * * *    *
```

FIG. 1B

```
A1 domain
Human    1 ATRRYYLGAV ELSWDYMQSD LG-ELPVDAR FPPRVPKSFP FNTSVVYKKT
Pig        AIRRYYLGAV ELSWDYRQSE LLRELHVDTR FPATAPGALP LGPSVLYKKT
Mouse      AIRRYYLGAV ELSWNYIQSD LLSVLHTDSR FLPRMSTSFP FNTSIMYKKT
           ********** **** * **  *   *  * * *       *    *  ****

         50 LFVEFTDHLF NIAKPRPPWM GLLGPTIQAE VYDTVVITLK NMASHPVSLH
            VFVEFTDQLF SVARPRPPWM GLLGPTIQAE VYDTVVVTLK NMASHPVSLH
            VFVEYKDQLF NIAKPRPPWM GLLGPTIWTE VHDTVVITLK NMASHPVSLH
             ***  * **   * ****** *******  * * **** *** **********

        100 AVGVSYWKAS EGAEYDDQTS QREKEDDKVF PGGSHTYVWQ VLKENGPMAS
            AVGVSFWKSS EGAEYEDHTS QREKEDDKVL PGKSQTYVWQ VLKENGPTAS
            AVGVSYWKAS EGDEYEDQTS QMEKEDDKVF PGESHTYVWQ VLKENGPMAS
            ***** ** * ** **** ** * *******  ** * ***** ******* **

        150 DPLCLTYSYL SHVDLVKDLN SGLIGALLVC REGSLAKEKT QTLHKFILLF
            DPPCLTYSYL SHVDLVKDLN SGLIGALLVC REGSLTRERT QNLHEFVLLF
            DPPCLTYSYM SHVDLVKDLN SGLIGALLVC KEGSLSKERT QMLYQFVLLF
            *********  ********** **********  ****  * * * *  * ***

        200 AVFDEGKSWH SETKNSLMQD RDAASARAWP KMHTVNGYVN RSLPGLIGCH
            AVFDEGKSWH SARNDSWTRA MDPAPARAQP AMHTVNGYVN RSLPGLIGCH
            AVFDEGKSWH SETNDSYTQS MDSASARDWP KMHTVNGYVN RSLPGLIGCH
            ********** *    *      * * **  *  ********** **********

        250 RKSVYWHVIG MGTTPEVHSI FLEGHTFLVR NHRQASLEIS PITFLTAQTL
            KKSVYWHVIG MGTSPEVHSI FLEGHTFLVR HHRQASLEIS PLTFLTAQTF
            RKSVYWHVIG MGTTPEIHSI FLEGHTFFVR NHRQASLEIS PITFLTAQTL
             ********** *** ** *** ******* **  ********** **********
                                                 APC/IXa       ♦
        300 LMDLGQFLLF CHISSHQHDG MEAYVKVDSC PEEPQLRMKN NEEAEDYDDD
            LMDLGQFLLF CHISSHHHGG MEAHVRVESC AEEPQLRRKA DE-EEDYDDN
            LIDLGQFLLF CHISSHKHDG MEAYVKVDSC PEESQWQKKN NN-EEMEDYD
            * ********* ****** * * *** * * **  ** *   *      *  *
                                  IIa/Xa
        350 LTDSEMDVVR FDDDNSPSFI QIR
            LYDSDMDVVR LDGDDVSPFI QIR
            DDLYSEMDMF TLDYDSSPFI QIR
                              ** ***
```

FIG. 1C

```
A2 domain
Human  373 SVAKKHPKTW VHYIAAEEED WDYAPLVLAP DDRSYKSQYL NNGPQRIGRK
Pig        SVAKKHPKTW VHYISAEEED WDYAPAVPSP SDRSYKSLYL NSGPQRIGRK
Mouse      SVAKKYPKTW IHYISAEEED WDYAPSVPTS DNGSYKSQYL SNGPHRIGRK
           ***** ****  *** ***** ***** *      **** **   ** *****

       423 YKKVRFMAYT DETFKTREAI QHESGILGPL LYGEVGDTLL IIFKNQASRP
           YKKARFVAYT DVTFKTRKAI PYESGILGPL LYGEVGDTLL IIFKNKASRP
           YKKVRFIAYT DETFKTRETI QHESGLLGPL LYGEVGDTLL IIFKNQASRP
           *** ** *** * *****  *   *** **** ********** ***** ****
                              A2 Inhibitor epitope
       473 YNIYPHGITD VRPLYSRRLP KGVKHLKDFP ILPGEIFKYK WTVTVEDGPT
           YNIYPHGITD VSALHPGRLL KGWKHLKDMP ILPGETFKYK WTVTVEDGPT
           YNIYPHGITD VSPLHARRLP RGIKHVKDLP IHPGEIFKYK WTVTVEDGPT
           ********** *  *   **  ** ** ** * * *** **** **********
                                                F.IXa binding
                                                    APC
       523 KSDPRCLTRY YSSFVNMERD LASGLIGPLL ICYKESVDQR GNQIMSDKRN
           KSDPRCLTRY YSSSINLEKD LASGLIGPLL ICYKESVDQR GNQMMSDKRN
           KSDPRCLTRY YSSFINPERD LASGLIGPLL ICYKESVDQR GNQMMSDKRN
           ********** ***  * * * ********** ********** *** *******

       573 VILFSVFDEN RSWYLTENIQ RFLPNPAGVQ LEDPEFQASN IMHSINGYVF
           VILFSVFDEN QSWYLAENIQ RFLPNPDGLQ PQDPEFQASN IMHSINGYVF
           VILFSIFDEN QSWYITENMQ RFLPNAAKTQ PQDPGFQASN IMHSINGYVF
           ***** ****  ***  ** * *****    *   ** ***** **********

       623 DSLQLSVCLH EVAYWYILSI GAQTDFLSVF FSGYTFKHKM VYEDTLTLFP
           DSLQLSVCLH EVAYWYILSV GAQTDFLSVF FSGYTFKHKM VYEDTLTLFP
           DSLELTVCLH EVAYWHILSV GAQTDFLSIF FSGYTFKHKM VYEDTLTLFP
           *** * **** ***** ***  ******** * ********** **********
                                                          ♦♦
       673 FSGETVFMSM ENPGLWILGC HNSDFRNRGM TALLKVSSCD KNTGDYYEDS
           FSGETVFMSM ENPGLWVLGC HNSDLRNRGM TALLKVYSCD RDIGDYYDNT
           FSGETVFMSM ENPGLWVLGC HNSDFRKRGM TALLKVSSCD KSTSDYYEEI
           ********** ********** **** * *** ********** *   ***
           ♦              IIa/Xa/APC
       723 YEDISAYLLS KNNAIEPR
           YEDIPGFLLS GKNVIEPR
           YEDIPTQLVN ENNVIDPR
           ****   *     * * **
```

B domain

```
Human  741 SFSQNSRHPS TRQKQFNATT IPENDIEKTD PWFAHRTPMP KIQNVSSSDL
Pig        SFAQNSRPPS ASQKQFQTIT SPEDDVE-LD PQSGERTQAL EELSVPSGDG
Mouse      SFFQNTNHPN TRKKKFKDST IPKNDMEKIE PQFEEIAEML KVQSVSVSDM
           ** **   *     * *   *  * * **   *              *   *

       791 LMLLRQS-PT PHGLSLSDLQ EAKYETFSDD PSPGAIDSNN SLSEMTHFRP
           SMLLGQN-PA PHGSSSSDLQ EARNEA--DD YLPGARERNT APSAAARLRP
           LMLLGQSHPT PHGLFLSDGQ EAIYEAIHDD HSPNAIDSNE GPSKVTQLRP
            *** *     ***    * * **  *   **   * *   *    *     **

       840 QLHHSGDMVF TPESGLQLRL NEKLGTTAAT ELKKLDFKVS ST-SNNLIS-
           ELHHSAERVL TPEP-------- ------EK ELKKLDSKMS SSSDLLKTSP
           ESHHSEKIVF TPQPGLQLRS NKSLETTIEV KWKKLGLQVS SLPSNLMTT-
             ***   *  **                        ***    * *

       888 TIPSDNLAAGT DNTSSLGPPS MPVHYDSQLD TTLFGKKSSP LTESGGPLSL
           TIPSDTLSAET ERTHSLGPPH PQVNFRSQLG AIVLGKNSSH FIGAGVPLGS
           TILSDNLKATF EKTDSSGFPD MPVHSSSKLS TTAFGKKAYS LVGSHVPLNA
           ** ** * *     * * * *    *  * *     **          **

       939 SEENNDSKLL ESGLMNSQES SWGKNVSSTE SGRLFKGKRA HGPALLTKDN
           TEED------ -------HES SLGENVSPVE SDGIFEKERA HGPASLTKDD
           SEENSDSNIL DSTLMYSQES LPRDNILSIE NDRLLREKRF HGIALLTKDN
            **                 **     *    *          *  ** * ****

       989 ALFKVSISLL KTNKTSNNSA TNRKTHIDGP SLLIENSPSV WQNILESDTE
           VLFKVNISLV KTNKARVYLK TNRKIHIDDA ALLTENRAS- ----------
           TLFKDNVSLM KTNKTYNHST TNEKLHTESP TSIENSTTDL QDAILKVNSE
            ***   **  ****       ** * *

      1039 FKKVTPLIHD RMLMDKNATA LRLNHMSNKT TSSKNMEMVQ QKKEGPIPPD
           ---------- ATFMDKNTTA SGLNHVSN-- ---------- ----------
           IQEVTALIHD GTLLGKNSTY LRLNHMLNRT TSTKNKDIFH RKDEDPIPQD
               *  ***       **      ***  *

      1089 AQNPDMSFFK MLFLPESARW IQRTHGKNSL NSGQGPSPKQ LVSLGPEKSV
           -------------------W IKGPLGKNPL SSERGPSPEL LTSSGSGKSV
           EENTIMPFSK MLFLSESSNW FKKTNGNNSL NSEQEHSPKQ LVYLMFKKYV
                             *      * * *  *    **   *     * * *

      1139 EGQNFLSEKN KVVVGKGEFT KDVGLKEMVF PSSRNLFLTN LDNLHENNTH
           KGQSSGQGRI RVAVEEEELS KG---KEMML PNSELTFLTN SADVQGNDTH
           KNQSFLSEKN KVTVEQDGFT KNIGLKDMAF PHNMSIFLTT LSNVHENGRH
             *         * *       *    *     *     ***         * *

      1189 NQEKKIQEEI EKKETLIQEN VVLPQIHTVT GTKNFMKNLF LLSTRQNVEG
           SQGKKSREEM ERREKLVQEK VDLPQVYTAT GTKNFLRNIF HQSTEPSVEG
           NQEKNIQEEI EK-EALIEEK VVLPQVHEAT GSKNFLKDIL ILGTRQNI--
            *     *   * * * *  * ***    * * ***

      1239 SYDGAYAPVL QDFRSLNDST NRTKKHTAHF SK--KGEEEN LEGLGNQTKQ
           FDGGSHAPVP QDSRSLNDSA ERAETHIAHF SAIR--EEAP LEAPGNRT--
           SLYEVHVPVL QNITSINNST NTVQIHMEHF FKRRKDKETN SEGLVNKTRE
                  **  *   * * *       *  **         *    *   *
```

FIG. 1D

```
1287 IVEKYACTTR ISPNTSQQNF VTQRSKRALK QFRLPLEETE LEKRIIVDDT
     ---------- ---GPGPRSA VPRRVKQSLK QIRLPLEEIK PERGVVLNAT
     MVKNYP---- -----SQKNI TTQRSKRALG QFRL------ ----------


1337 STQWSKNMKH LTPSTLTQID YNEKEKGAIT QSPLSDCLTR SHSIPQANRS
     STRWS----- ---------- ---------- ---------- ----------
     STQWLKTINC STQCIIKQID HSKEMKKFIT KSSLSDS-SV IKSTTQTNSS
     ** *

1387 PLPIAKVSSF PSIRPIYLTR VLFQDNSSHL PAASY----R KKDSGVQESS
     ---------- ---------- ---------- ---------- -------ESS
     DSHIVKTSAF P---PIDLKR SPFQNKFSHV QASSYIYDFK TKSSRIQESN
                                                       **

1433 HFLQGAKKNN LSLAILTLEM TGDQREVGSL GTSATNSVTY KKVENTVLPK
     PILQGAKRNN LSLPFLTLEM AGGQGKISAL GKSAAGPLAS GKLEKAVLSS
     NFLKETKINN PSLAILPWNM FIDQGKFTSP GKSNTNSVTY KKRENIIFLK
       *   * **  **  *   *    *       * *         * *

1483 PDLPKTSGKV ELLPKVHIYQ KDLFPTETSN GSPGHLDLVE GSLLQGTEGA
     AGLSEASGKA EFLPKVRVHR EDLLPQKTSN VSCAHGDLGQ EIFLQKTRGP
     PTLPEESGKI ELLPQVSIQE EEILPTETSH GSPGHLNLMK EVFLQKIQGP
           ***  * ** *         *   *   * *          ***  *

1533 IKWNEANRPG KVPFLRVATE SSAKTPSKLL DPLAWDNHYG TQIPKEEWKS
     VNLNKVNRPG ---------- ---RTPSKLL ---------G PPMPKE-WES
     TKWNKAKRHG ESIKGKTES- -SKNTRSKLL NHHAWDYHYA AQIPKDMWKS
        *   * *                 * ****                 * * *

1583 QEKSPEKTAF KKKDTI-LSLN ACESNHAIAA INEGQNKPEI EVTWAKQGRT
     LEKSPKSTAL RTKDIISLPLD RHESNHSIAA KNEGQAETQR EAAWTKQGGP
     KEKSPEIISI KQEDTI-LSLR PHGNSHSIGA -NEKQNWPQR ETTWVKQGQT
      ****         *   *          ** *  ** *        * ***

1633 ERLCSQNPPY LKRHQR
     GRLCAPKPPV LRRHQR
     QRTCSQIPPV LKRHQR
      * *  *** * ****
```

Light chain activation peptide

```
                        ♦                ♦     IIa/Xa
Human 1649 EITRTTLQSDQEEIDYDDTISVEMKKEDFDIYDEDENQSPR
Pig        DISLPTFQPEEDKMDYDDIFSTETKGEDFDIYGEDENQDPR
Mouse      EL--SAFQSEQEATDYDDAITIET-IEDFDIYSEDIKQGPR
           *     *     ****    *   ****** **  * **
```

FIG. 1E

A3 domain

FIG. 1F

```
                                                IXa Xa
Human 1690 SFQKKTRHYF IAAVERLWDY GMSSSPHVLR NRAQSGSVPQ FKKVVFQEFT
Pig        SFQKRTRHYF IAAVEQLWDY GMSESPRALR NRAQNGEVPR FKKVVFREFA
Mouse      SVQQKTRHYF IAAVERLWDY GMSTS-HVLR NRYQSDNVPQ FKKVVFQEFT
           * *  ***** ***** **** *** *   ** ** *   **  ****** **

      1740 DGSFTQPLYR GELNEHLGLL GPYIRAEVED NIMVTFRNQA SRPYSFYSSL
           DGSFTQPSYR GELNKHLGLL GPYIRAEVED NIMVTFKNQA SRPYSFYSSL
           DGSFSQPLYR GELNEHLGLL GPYIRAEVED NIMVTFKNQA SRPYSFYSSL
           **** ** ** **** ***** ********** ****** *** **********
                                 Factor IXa binding
      1790 ISYEEDQRQG AEPRKNFVKP NETKTYFWKV QHHMAPTKDE FDCKAWAYFS
           ISYPDDQEQG AEPRHNFVQP NETRTYFWKV QHHMAPTEDE FDCKAWAYFS
           ISYKEDQR-G EEPRRNFVKP NETKIYFWKV QHHMAPTEDE FDCKAWAYFS
           ***  **  *  *** *** * ***  ***** ********** **********

      1840 DVDLEKDVHS GLIGPLLVCH TNTLNPAHGR QVTVQEFALF FTIFDETKSW
           DVDLEKDVHS GLIGPLLICR ANTLNAAHGR QVTVQEFALF FTIFDETKSW
           DVDLERDMHS GLIGPLLICH ANTLNPAHGR QVSVQEFALL FTIFDETKSW
           ***** * ** ******* *   **** **** ** ******  **********

      1890 YFTENMERNC RAPCNIQMED PTFKENYRFH AINGYIMDTL PGLVMAQDQR
           YFTENVERNC RAPCHLQMED PTLKENYRFH AINGYVMDTL PGLVMAQNQR
           YFTENVKRNC KTPCNFQMED PTLKENYRFH AINGYVMDTL PGLVMAQDQR
           *****  ***   **  **** ** ******* ********** ******* **

      1940 IRWYLLSMGS NENIHSIHFS GHVFTVRKKE EYKMALYNLY PGVFETVEML
           IRWYLLSMGS NENIHSIHFS GHVFSVRKKE EYKMAVYNLY PGVFETVEML
           IRWYLLSMGN NENIQSIHFS GHVFTVRKKE EYKMAVYNLY PGVFETLEMI
           *********  **** ***** **** ***** ***** **** ****** **
                                 Protein C binding
      1990 PSKAGIWRVE CLIGEHLHAG MSTLFLVYSN
           PSKVGIWRIE CLIGEHLQAG MSTTFLVYSK
           PSRAGIWRVE CLIGEHLQAG MSTLFLVYSK
           **  **** * ******* ** *** ******
```

C1 domain

```
Human 2020 KCQTPLGMAS GHIRDFQITA SGQYGQWAPK LARLHYSGSI NAWSTKEPFS
Pig        ECQAPLGMAS GRIRDFQITA SGQYGQWAPK LARLHYSGSI NAWSTKDPHS
Mouse      QCQIPLGMAS GSIRDFQITA SGHYGQWAPN LARLHYSGSI NAWSTKEPFS
            ** ****** * ******** ** ******  ********** ****** * *

      2070 WIKVDLLAPM IIHGIKTQGA RQKFSSLYIS QFIIMYSLDG KKWQTYRGNS
           WIKVDLLAPM IIHGIMTQGA RQKFSSLYIS QFIIMYSLDG RNWQSYRGNS
           WIKVDLLAPM IVHGIKTQGA RQKFSSLYIS QFIIMYSLDG KKWLSYQGNS
           ********** * *** **** ********** **********   *  * ***

      2120 TGTLMVFFGN VDSSGIKHNI FNPPIIARYI RLHPTHYSIR STLRMELMGCDLN
           TGTLMVFFGN VDASGIKHNI FNPPIVARYI RLHPTHYSIR STLRMELMGCDLN
           TGTLMVFFGN VDSSGIKHNS FNPPIIARYI RLHPTHSSIR STLRMELMGCDLN
           ********** ** ******  ***** **** ****** *** **************
```

FIG. 1G

C2 domain

inhibitor epitope

```
Human 2173 SCSMPLGMES KAISDAQITA SSYFTNMFAT WSPSKARLHL QGRSNAWRPQ
Pig        SCSMPLGMQN KAISDSQITA SSHLSNIFAT WSPSQARLHL QGRTNAWRPR
Mouse      SCSIPLGMES KVISDTQITA SSYFTNMFAT WSPSQARLHL QGRTNAWRPQ
           *** ****   * *** **** **   * *** **** ***** *** *****

                                    C2
      2223 VNNPKEWLQV DFQKTMKVTG VTTQGVKSLL TSMYVKEFLI SSSQDGHQWT
           VSSAEEWLQV DLQKTVKVTG ITTQGVKSLL SSMYVKEFLV SSSQDGRRWT
           VNDPKQWLQV DLQKTMKVTG IITQGVKSLF TSMFVKEFLI SSSQDGHHWT
           *     **** * *** ****  ********   ** ******  ******  **

                                                Phospholipid
      2273 LFFQNGKVKV FQGNQDSFTP VVNSLDPPLL TRYLRIHPQS WVHQIALRME
           LFLQDGHTKV FQGNQDSSTP VVNALDPPLF TRYLRIHPTS WAQHIALRLE
           QILYNGKVKV FQGNQDSSTP MMNSLDPPLL TRYLRIHPQI WEHQIALRLE
                * ** **********     *****  ********   *   **** *

           binding
      2323 VLGCEAQDLY
           VLGCEAQDLY
           ILGCEAQQQY
            ******  *
```

FIG. 1H