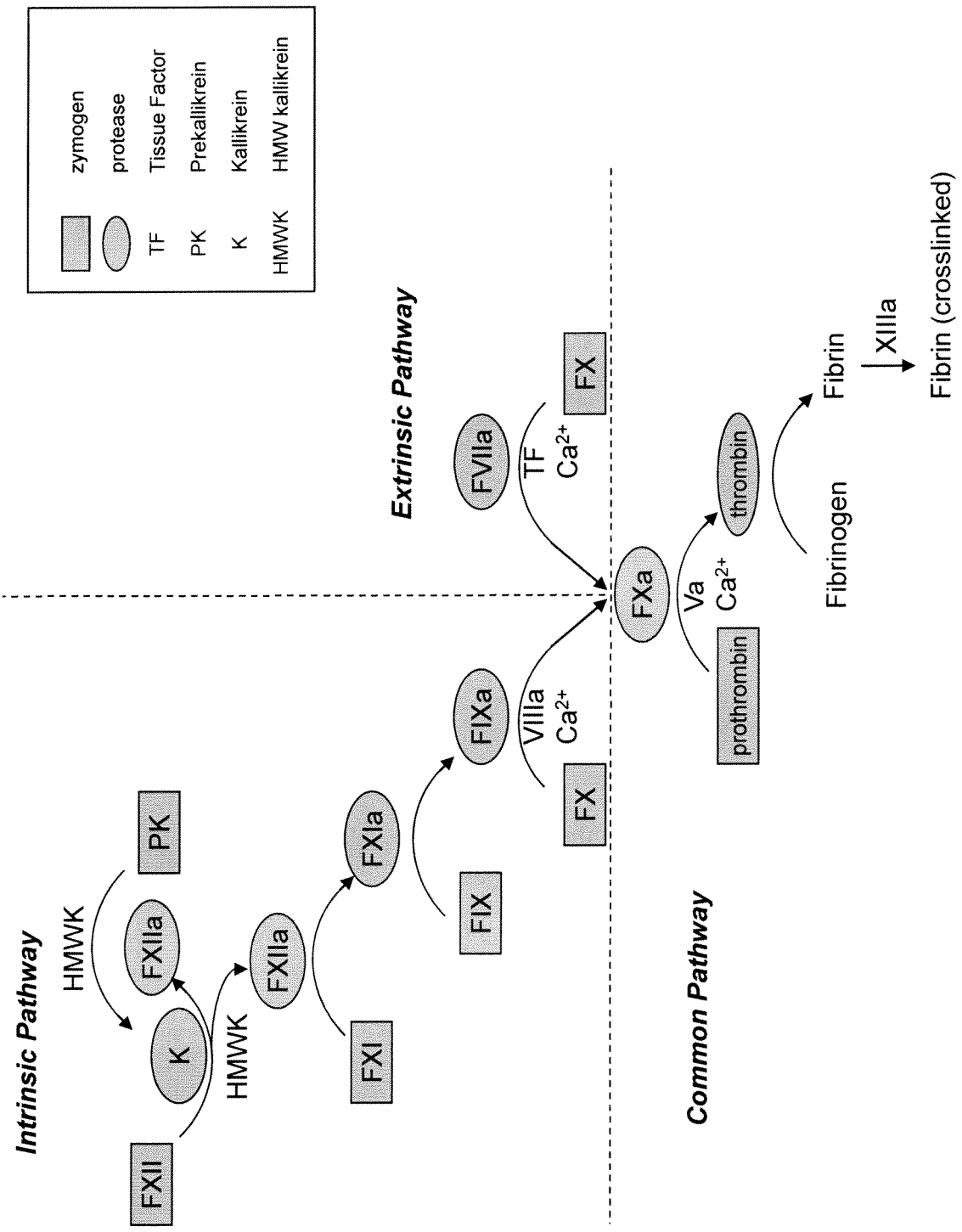


Figure 1. Coagulation cascade

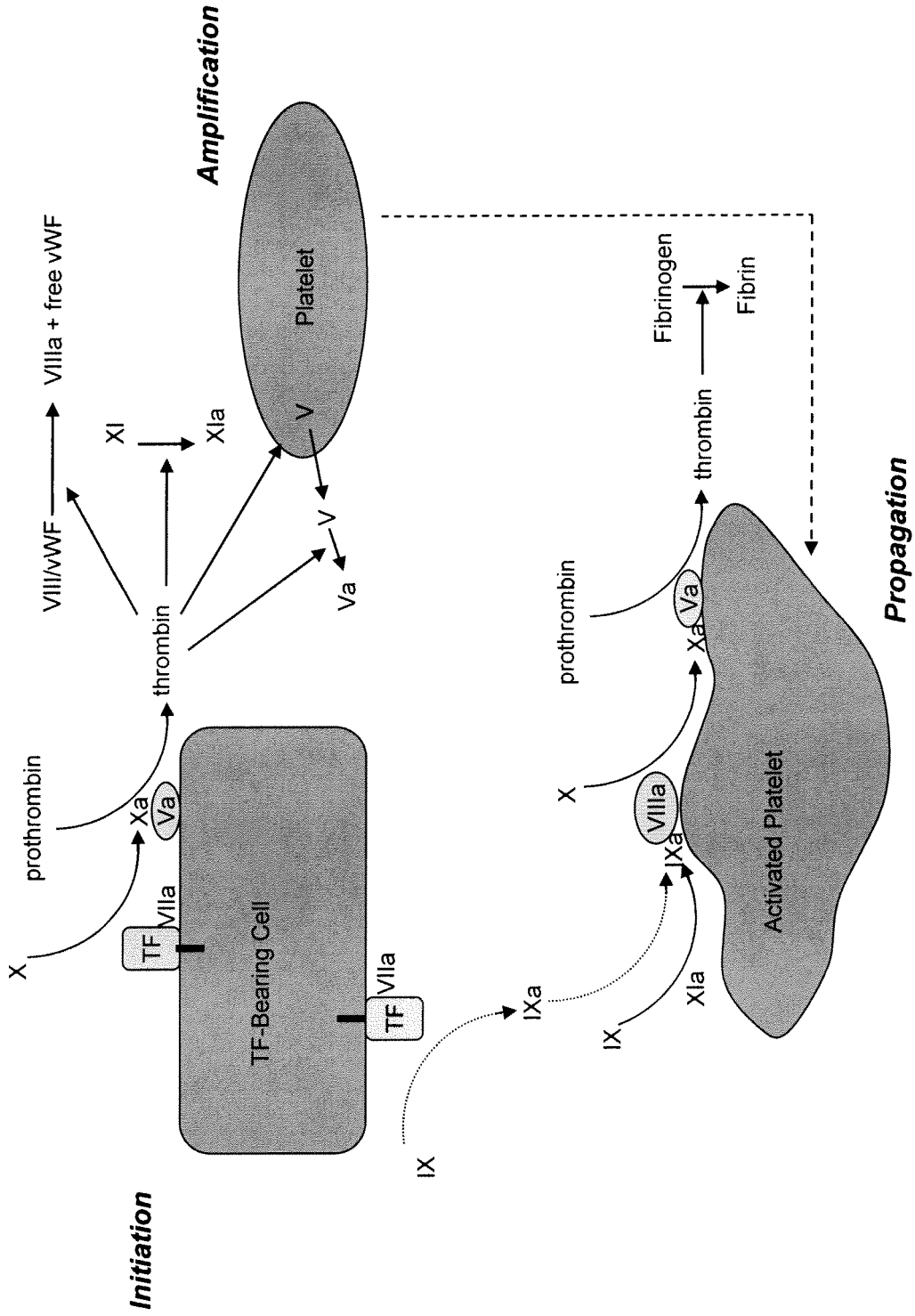


Figure 2. Cell-based model of coagulation

```
SEQ ID NO:20      ----------------------------------------------YNSGKLEEFVQGNL 14
SEQ ID NO:325     MQRVNMIMAESPGLITICLLGYLLSAECTVFLDHENANKILNRPKRYNSGKLEEFVQGNL 60
SEQ ID NO:2       MQRVNMIMAESPGLITICLLGYLLSAECTVFLDHENANKILNRPKRYNSGKLEEFVQGNL 60
SEQ ID NO:3       ----------------------------------------------YNSGKLEEFVQGNL 14
SEQ ID NO:4       MQRVNMIMAESPGLITICLLGYLLSAECTVFLDHENANKILNRPKRYNSGKLEEFVQGNL 60
SEQ ID NO:267     ----------------------------------------------YNSGKLEEFVQGNL 14
SEQ ID NO:366     ----------------------------------------------YNSGKLEEFVQGNL 14
SEQ ID NO:360     ----------------------------------------------YNSGKLEEFVQGNL 14
SEQ ID NO:406     ----------------------------------------------YNSGKLEEFVQGNL 14
SEQ ID NO:346     ----------------------------------------------YNSGKLEEFVQGNL 14
SEQ ID NO:172     ----------------------------------------------YNSGKLEEFVQGNL 14
SEQ ID NO:347     ----------------------------------------------YNSGKLEEFVQGNL 14
SEQ ID NO:365     ----------------------------------------------YNSGKLEEFVQGNL 14
7,700,734         ----------------------------------------------YNSGKLEEFVQGNL 14
7,125,841         MQRVNMIMAESPSLITICLLGYLLSAECTVFLDHENANKILNRPKRYNSGKLEEFVQGNL 60
SEQ ID NO:5       MQRVNMIMAESPGLITICLLGYLLSAECTVFLDHENANKILNRPKRYNSGKLEEFVQGNL 60
SEQ ID NO:14      ----------------------------------------------YNSGKLEEFVRGNL 14
                                                               **********:***

SEQ ID NO:20      ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
SEQ ID NO:325     ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 120
SEQ ID NO:2       ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 120
SEQ ID NO:3       ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
SEQ ID NO:4       ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 120
SEQ ID NO:267     ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
SEQ ID NO:366     ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
SEQ ID NO:360     ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
SEQ ID NO:406     ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
SEQ ID NO:346     ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
SEQ ID NO:172     ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
SEQ ID NO:347     ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
SEQ ID NO:365     ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
7,700,734         ERECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 74
7,125,841         ERECMEEKCSFEEPREVFENTEKITEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 120
SEQ ID NO:5       ERECMEEKCNFEEAREVFENTEKTTEFWKQYVDGDQCESNPCLNGGSCKDDINSYECWCP 120
SEQ ID NO:14      ERECKEEKCSFEEAREVFENTEKTTEFWKQYVDGDQCESNPCLNGGMCKDDINSYECWCQ 74
                  **** ****.***.********: ********************** ************
```

Figure 3

```
SEQ ID NO:20      FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
SEQ ID NO:325     FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 180
SEQ ID NO:2       FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 180
SEQ ID NO:3       FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
SEQ ID NO:4       FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 180
SEQ ID NO:267     FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
SEQ ID NO:366     FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
SEQ ID NO:360     FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
SEQ ID NO:406     FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
SEQ ID NO:346     FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
SEQ ID NO:172     FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
SEQ ID NO:347     FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
SEQ ID NO:365     FGFEGKNCELDATCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
7,700,734         FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 134
7,125,841         FGFEGKNCELDVTCNIKNGRCEQFCKNSADNKVVCSCTEGYRLAENQKSCEPAVPFPCGR 180
SEQ ID NO:5       FGFEGKNCELDVTCNIKNGRCKQFCKNTADNKVVCSCTEGYRLAENQRSCEPAVPFPCGR 180
SEQ ID NO:14      AGFEGTNCELDATCSIKNGRCKQFCKRDTDNKVVCSCTDGYRLAEDQKSCEPAVPFPCGR 134
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SEQ ID NO:20      VSVSQTS-KLTRAEAVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 193
SEQ ID NO:325     VSVSQTS-KLTRAEAVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 239
SEQ ID NO:2       VSVSQTS-KLTRAETVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 239
SEQ ID NO:3       VSVSQTS-KLTRAETVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 193
SEQ ID NO:4       VSVSQTS-KLTRAETVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 239
SEQ ID NO:267     VSVSQTS-KLTRAETVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 193
SEQ ID NO:366     VSVSQTS-KLTRAETVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 193
SEQ ID NO:360     VSVSQTS-KLTRAETVFPDVDFVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 193
SEQ ID NO:406     VSVSQTS-KLTRAETVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 193
SEQ ID NO:346     VSVSQTS-KLTRAETVFPDVDFVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 193
SEQ ID NO:172     VSVSQTS-KLTRAETVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 193
SEQ ID NO:347     VSVSQTS-KLTRAETVFPDVDYVNPTEAETILDNITQGTQSFNDFTRVVGGEDAKPGQFP 239
SEQ ID NO:365     VSVSQTS-TLTRAETVFPDVEYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 239
7,700,734         VSVSQTS-KLTRAETVFPDVDYVNSTEAETILDNITQSTQSFNDFTRVVGGEDAKPGQFP 193
7,125,841         VSVSHISKKLTRAETIFSNTNYENSSEAEIIWDNVTQSNQSFDEFSRVVGGEDAERGQFP 194
SEQ ID NO:5
SEQ ID NO:14
                  ****:  *  .*****::*.:.::  * .:***  *  **:**..***:*:*********: ****
```

Figure 3

```
SEQ ID NO:20       WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 252
SEQ ID NO:325      WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 298
SEQ ID NO:2        WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 298
SEQ ID NO:3        WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 252
SEQ ID NO:4        WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVDTGVKITVVAGEHNIEETEHTEQKRNVIR- 298
SEQ ID NO:267      WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 252
SEQ ID NO:366      WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 252
SEQ ID NO:360      WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVNITVVAGEHNIEETEHTEQNRSVIR- 252
SEQ ID NO:406      WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVNITVVAGEHNIEETEHTEQNRSVIR- 252
SEQ ID NO:346      WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 252
SEQ ID NO:172      WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 252
SEQ ID NO:347      WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 252
SEQ ID NO:365      WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVSR- 252
7,700,734          WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIR- 252
7,125,841          WQVVLNGKVDAFCGGSIVNEKWIVTAAHCVETGVKITVVAGEHNIEETEHTEQKRNVIRA 299
SEQ ID NO:5        WQVVLNGKVDAFCGGSIVNEKWVVTAAHCVETDAKITVVAGEHNIEETEHTEQKRNVIR- 298
SEQ ID NO:14       WQVLLHGEIAAFCGGSIVNEKWVVTAAHCIKPGVKITVVAGEHNTEKPEPTEQKRNVIR- 253
                   ***:*:*:: ************:******:....:********* *:.* ***:*.* *

SEQ ID NO:20       IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
SEQ ID NO:325      IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 358
SEQ ID NO:2        IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 358
SEQ ID NO:3        IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
SEQ ID NO:4        IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 358
SEQ ID NO:267      IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
SEQ ID NO:366      IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
SEQ ID NO:360      IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
SEQ ID NO:406      IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
SEQ ID NO:346      IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
SEQ ID NO:172      IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
SEQ ID NO:347      IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
SEQ ID NO:365      IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
7,700,734          IIPHHNYNAAINKYNHDIALLELDAPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 312
7,125,841          IIPHHNYNAAINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWAR 359
SEQ ID NO:5        IIPHHNYNATINKYNHDIALLELDEPLVLNSYVTPICIADKEYTNIFLKFGSGYVSGWGR 358
SEQ ID NO:14       AIPYHSYNASINKYSHDIALLELDEPLELNSYVTPICIADRDYTNIFSKFGYGYVSGWGK 313
                    **:*.***:****.********* ** ************::***** *** ******.:
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Figure 3

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SEQ ID NO:20       VFHKGRSALVLQYLRVPLVDRATCLRSTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
SEQ ID NO:325      VFHKGRSALVLQYLRVPLVDRATCLRSTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 418
SEQ ID NO:2        VFHKGRSALVLQYLRVPLVDRATCLRSTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 418
SEQ ID NO:3        VFHKGRSALVLQYLRVPLVDRATCLRSTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
SEQ ID NO:4        VFHKGRSALVLQYLRVPLVDRATCLRSTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 418
SEQ ID NO:267      VFHKGYSALVLQYLRVPLVDRATCLESTKFRIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
SEQ ID NO:366      VFHKGYSALVLQYLRVPLVDRATCLESTKFRIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
SEQ ID NO:360      VFHKGYSALVLQYLRVPLVDRATCLESTKFRIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
SEQ ID NO:406      VFHKGYSALVLQYLRVPLVDRATCLESTKFRIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
SEQ ID NO:346      VFHKGYSALVLQYLRVPLVDRATCLESTKFRIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
SEQ ID NO:172      VFHKGYSALVLQYLRVPLVDRATCLESTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
SEQ ID NO:347      VFHKGYSALVLQYLRVPLVDRATCLESTKFRIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
SEQ ID NO:365      VFHKGRSALVLQYLRVPLVDRATCLESTKFRIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
7,700,734          VFHKGRSALVLQYLRVPLVDRATCLASTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 372
7,125,841          VFHKGRSALVLQYLRVPLVDRATCLRSTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 419
SEQ ID NO:5        VFNKGRSASVLQYLRVPLVDRATCLRSTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTE 418
SEQ ID NO:14       VFNRGRSASILQYLKVPLVDRATCLRSTKFSIYSHMFCAGYHEGGKDSCQGDSGGPHVTE 373
                   **:: * ** :****:********** **** **.:*****:****:**************

SEQ ID NO:20       VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKEKTKLT 415
SEQ ID NO:325      VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKEKTKLT 461
SEQ ID NO:2        VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKEKTKLT 461
SEQ ID NO:3        VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKEKTKLT 415
SEQ ID NO:4        VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKEKTKLT 461
SEQ ID NO:267      VEGTSFLTGIISWGEECAMKGKYGIYTKVSEYVNWIKNKTKLT 415
SEQ ID NO:366      VEGTSFLTGIISWGEECAMKGKYGIYTKVSEYVNWIKSKTKLT 415
SEQ ID NO:360      VEGTSFLTGIISWGEECAMKGKYGIYTKVSEYVNWIKNKTKLT 415
SEQ ID NO:406      VEGTSFLTGIISWGEECAMKGKYGIYTKVSEYVNWIKEKTKLT 415
SEQ ID NO:346      VEGTSFLTGIISWGEECAMKGKYGIYTKVSEYVNWIKEKTKLT 415
SEQ ID NO:172      VEGTSFLTGIISWGEECAMKGKYGIYTKVSEYVNWIKNKTKLT 415
SEQ ID NO:347      VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKNKTKLT 415
SEQ ID NO:365      VEGTSFLTGIISWGEECAMKGKYGIYTKVSEYVNWIKEKTKLT 415
7,700,734          VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKEKTKLT 415
7,125,841          VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKEKTKLT 462
SEQ ID NO:5        VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKEKTKLT 461
SEQ ID NO:14       VEGTSFLTGIISWGEECAMKGKYGIYTKVSRYVNWIKEKTKLT 416
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```

Figure 3