WE CLAIM:

1. An isolated antigen binding peptide comprising at least one heavy chain variable region (VH) and at least one light chain variable region (VL), wherein the at least one VH comprises at least one of:

   (a) a VH complementarity-determining region 1 (VH-CDR1) comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 1-12;

   (b) a VH-CDR2 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 13-22; or

   (c) a VH-CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 23-28; and

   wherein the at least one VL comprises at least one of:

   (d) a VL-CDR1 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 29-37;

   (e) a VL-CDR2 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 38-43; or

   (f) a VL-CDR3 comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 44-51.

2. An isolated antigen binding peptide comprising:

   (a) at least one heavy chain variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 52-83; and

   (b) at least one light chain variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 84-99.

3. An isolated antigen binding peptide comprising at least one heavy chain variable region (VH) and at least one light chain variable region (VL), wherein the VH comprises three complementarity determining regions (CDRs): VH-CDR1,VH-CDR2, and VH-CDR3 and the VL comprises three CDRs: VL-CDR1, VL-CDR2, and VL-CDR3, wherein the amino acid sequences of the VH-CDR1, VH-CDR2, VH-CDR3, VL-CDR1, VL-CDR2, and VL-CDR3, respectively comprise the sequences selected from the group consisting of:

(a) SEQ ID NOs: 1, 13, 23, 29, 38, and 44, respectively;

(b) SEQ ID NOs: 1, 14, 23, 29, 38, and 45, respectively;

(c) SEQ ID NOs: 1, 13, 24, 30, 38, and 45, respectively;

(d) SEQ ID NOs: 1, 13, 24, 29, 39, and 45, respectively;

(e) SEQ ID NOs: 1, 14, 25, 29, 38, and 46, respectively;

(f) SEQ ID NOs: 2, 13, 26, 31, 40, and 47, respectively;

(g) SEQ ID NOs: 3, 15, 24, 32, 40, and 47, respectively;

(h) SEQ ID NOs: 4, 16, 24, 29, 38, and 46, respectively;

(i) SEQ ID NOs: 5, 15, 24, 29, 38, and 46, respectively;

(j) SEQ ID NOs: 1, 14, 24, 29, 38, and 46, respectively;

(k) SEQ ID NOs: 6, 13, 24, 31, 40, and 47, respectively;

(l) SEQ ID NOs: 3, 15, 24, 32, 41, and 48, respectively;

(m) SEQ ID NOs: 1, 14, 24, 33, 38, and 49, respectively;

(n) SEQ ID NOs: 1, 14, 26, 29, 38, and 46, respectively;

(o) SEQ ID NOs: 7, 17, 26, 29, 38, and 46, respectively;

(p) SEQ ID NOs: 8, 17, 24, 34, 38, and 46, respectively;

(q) SEQ ID NOs: 1, 17, 26, 29, 38, and 46, respectively;

(r) SEQ ID NOs: 1, 17, 26, 35, 38, and 46, respectively;

(s) SEQ ID NOs: 1, 17, 24, 33, 38, and 49, respectively;

(t) SEQ ID NOs: 9, 14, 26, 29, 38, and 46, respectively;

(u) SEQ ID NOs: 9, 14, 26, 35, 38, and 46, respectively;

(v) SEQ ID NOs: 9, 17, 24, 29, 38, and 46, respectively;

(w) SEQ ID NOs: 9, 17, 24, 35, 38, and 46, respectively;

(x) SEQ ID NOs: 9, 17, 24, 34, 38, and 46, respectively;

(y) SEQ ID NOs: 9, 14, 24, 29, 38, and 46, respectively;

(z) SEQ ID NOs: 9, 18, 26, 35, 38, and 46, respectively;

(aa) SEQ ID NOs: 8, 14, 24, 29, 38, and 46, respectively;

(bb) SEQ ID NOs: 8, 17, 26, 29, 38, and 46, respectively;

(cc) SEQ ID NOs: 9, 19, 26, 29, 38, and 46, respectively;

(dd) SEQ ID NOs: 9, 17, 26, 34, 38, and 46, respectively;

(ee) SEQ ID NOs: 10, 20, 27, 36, 42, and 50, respectively;

(ff) SEQ ID NOs: 11, 21, 28, 37, 43, and 51, respectively;

(gg) SEQ ID NOs: 12, 22, 26, 33, 38, and 46, respectively;

(hh) SEQ ID NOs: 12, 17, 26, 33, 38, and 46, respectively;

(ii) SEQ ID NOs: 9, 17, 26, 33, 38, and 46, respectively; and

(jj) variants of (a) to (ii) wherein any of the amino acid sequences have 1, 2, or 3 conservative amino acid substitutions therein.

4. The isolated antigen binding peptide of claim 3, wherein the at least one VH region and the at least one VL region, respectively, comprise amino acid sequences selected from the group consisting of:

(a) SEQ ID NO: 52 and SEQ ID NO: 84, respectively;

(b) SEQ ID NO: 53 and SEQ ID NO: 85, respectively;

(c) SEQ ID NO: 54 and SEQ ID NO: 86, respectively;

(d) SEQ ID NO: 54 and SEQ ID NO: 87, respectively;

(e) SEQ ID NO: 55 and SEQ ID NO: 88, respectively;

(f) SEQ ID NO: 56 and SEQ ID NO: 89, respectively;

(g) SEQ ID NO: 57 and SEQ ID NO: 90, respectively;

(h) SEQ ID NO: 58 and SEQ ID NO: 88, respectively;

(i) SEQ ID NO: 59 and SEQ ID NO: 88, respectively;

(j) SEQ ID NO: 60 and SEQ ID NO: 91, respectively;

(k) SEQ ID NO: 61 and SEQ ID NO: 89, respectively;

(l) SEQ ID NO: 57 and SEQ ID NO: 92, respectively;

(m) SEQ ID NO: 60 and SEQ ID NO: 93, respectively;

(n) SEQ ID NO: 60 and SEQ ID NO: 88, respectively;

(o) SEQ ID NO: 62 and SEQ ID NO: 88, respectively;

(p) SEQ ID NO: 63 and SEQ ID NO: 88, respectively;

(q) SEQ ID NO: 64 and SEQ ID NO: 88, respectively;

(r) SEQ ID NO: 65 and SEQ ID NO: 94, respectively;

(s) SEQ ID NO: 66 and SEQ ID NO: 88, respectively;

(t) SEQ ID NO: 66 and SEQ ID NO: 95, respectively;

(u) SEQ ID NO: 67 and SEQ ID NO: 88, respectively;

(v) SEQ ID NO: 68 and SEQ ID NO: 93, respectively;

(w) SEQ ID NO: 69 and SEQ ID NO: 88, respectively;

(x) SEQ ID NO: 69 and SEQ ID NO: 95, respectively;

(y) SEQ ID NO: 70 and SEQ ID NO: 88, respectively;

(z) SEQ ID NO: 70 and SEQ ID NO: 95, respectively;

(aa) SEQ ID NO: 71 and SEQ ID NO: 88, respectively;

(bb) SEQ ID NO: 71 and SEQ ID NO: 94, respectively;

(cc) SEQ ID NO: 72 and SEQ ID NO: 88, respectively;

(dd) SEQ ID NO: 73 and SEQ ID NO: 95, respectively;

(ee) SEQ ID NO: 74 and SEQ ID NO: 88, respectively;

(ff) SEQ ID NO: 75 and SEQ ID NO: 88, respectively;

(gg) SEQ ID NO: 76 and SEQ ID NO: 88, respectively;

(hh) SEQ ID NO: 77 and SEQ ID NO: 94, respectively;

(ii) SEQ ID NO: 78 and SEQ ID NO: 96, respectively;

(jj) SEQ ID NO: 79 and SEQ ID NO: 97 respectively;

(kk) SEQ ID NO: 80 and SEQ ID NO: 98, respectively;

(ll) SEQ ID NO: 81 and SEQ ID NO: 99, respectively;

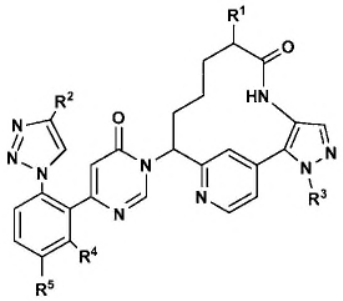
(mm) SEQ ID NO: 81 and SEQ ID NO: 98, respectively;

(nn) SEQ ID NO: 82 and SEQ ID NO: 99, respectively;

(oo) SEQ ID NO: 83 and SEQ ID NO: 98, respectively; and

(pp) variants of (a) to (oo) comprising 1, 2, 3, or 4 conservative amino acid substitutions.

5. The isolated antigen binding peptide of any one of the preceding claims, wherein the isolated antigen binding peptide specifically binds to the compound set forth in Formula (I):



(I)

or a stereoisomer or a tautomer thereof, wherein:

R^1 is C_{1-4} alkyl;

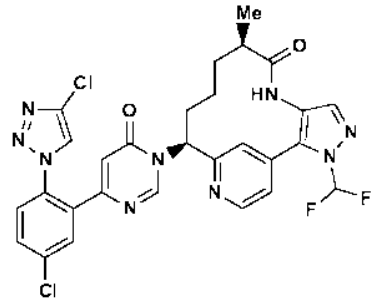
R^2 is independently selected from F, Cl, CF_3, CHF_2, CH_2F, CH_3;

R^3 is independently selected from CF_3, CHF_2, CH_2F, and CH_3;

R^4 is H; and

R^5 is independently selected from F and Cl.

6. The isolated antigen binding peptide of claim 5, wherein the compound has Formula (II):



(II).

7. The isolated antigen binding peptide of any one of the preceding claims, wherein said isolated antigen binding peptide is a Fab, Fab', F(ab')2, Fd, single chain Fv or scFv, disulfide linked Fv, V-NAR domain, IgNar, intrabody, IgGACH2, minibody, $F(ab')_3$,

tetrabody, triabody, diabody, single-domain antibody, DVD-Ig, Fcab, mAb^2, $(scFv)_2$, scFv-Fc, or a tandem Fab.

8. The isolated antigen binding peptide of any one of the preceding claims, comprising sequences selected from the group consisting of:

(a) SEQ ID NO: 100 and SEQ ID NO: 160, respectively;

(b) SEQ ID NO: 101 and SEQ ID NO: 160, respectively;

(c) SEQ ID NO: 102 and SEQ ID NO: 161, respectively;

(d) SEQ ID NO: 103 and SEQ ID NO: 161, respectively;

(e) SEQ ID NO: 104 and SEQ ID NO: 162, respectively;

(f) SEQ ID NO: 105 and SEQ ID NO: 162, respectively;

(g) SEQ ID NO: 104 and SEQ ID NO: 163, respectively;

(h) SEQ ID NO: 105 and SEQ ID NO: 163, respectively;

(i) SEQ ID NO: 106 and SEQ ID NO: 164, respectively;

(j) SEQ ID NO: 107 and SEQ ID NO: 164, respectively;

(k) SEQ ID NO: 108 and SEQ ID NO: 165, respectively;

(l) SEQ ID NO: 109 and SEQ ID NO: 165, respectively;

(m) SEQ ID NO: 110 and SEQ ID NO: 166, respectively;

(n) SEQ ID NO: 111 and SEQ ID NO: 166, respectively;

(o) SEQ ID NO: 112 and SEQ ID NO: 164, respectively;

(p) SEQ ID NO: 113 and SEQ ID NO: 164, respectively;

(q) SEQ ID NO: 114 and SEQ ID NO: 164, respectively;

(r) SEQ ID NO: 115 and SEQ ID NO: 164, respectively;

(s) SEQ ID NO: 116 and SEQ ID NO: 167, respectively;

(t) SEQ ID NO: 117 and SEQ ID NO: 167, respectively;

(u) SEQ ID NO: 118 and SEQ ID NO: 165, respectively;

(v) SEQ ID NO: 119 and SEQ ID NO: 165, respectively;

(w) SEQ ID NO: 110 and SEQ ID NO: 168, respectively;

(x) SEQ ID NO: 111 and SEQ ID NO: 168, respectively;

(y) SEQ ID NO: 116 and SEQ ID NO: 169, respectively;

(z) SEQ ID NO: 117 and SEQ ID NO: 169, respectively;

(aa) SEQ ID NO: 116 and SEQ ID NO: 164, respectively;

(bb) SEQ ID NO: 117 and SEQ ID NO: 164, respectively;

(cc) SEQ ID NO: 120 and SEQ ID NO: 164, respectively;

(dd) SEQ ID NO: 121 and SEQ ID NO: 164, respectively;

(ee) SEQ ID NO: 122 and SEQ ID NO: 164, respectively;

(ff) SEQ ID NO: 123 and SEQ ID NO: 164, respectively;

(gg) SEQ ID NO: 124 and SEQ ID NO: 164, respectively;

(hh) SEQ ID NO: 125 and SEQ ID NO: 164, respectively;

(ii) SEQ ID NO: 126 and SEQ ID NO: 170, respectively;

(jj) SEQ ID NO: 127 and SEQ ID NO: 170, respectively;

(kk) SEQ ID NO: 128 and SEQ ID NO: 164, respectively;

(ll) SEQ ID NO: 129 and SEQ ID NO: 164, respectively;

(mm) SEQ ID NO: 128 and SEQ ID NO: 171, respectively;

(nn) SEQ ID NO: 129 and SEQ ID NO: 171, respectively;

(oo) SEQ ID NO: 130 and SEQ ID NO: 164, respectively;

(pp) SEQ ID NO: 131 and SEQ ID NO: 164, respectively;

(qq) SEQ ID NO: 132 and SEQ ID NO: 169, respectively;

(rr) SEQ ID NO: 133 and SEQ ID NO: 169, respectively;

(ss) SEQ ID NO: 134 and SEQ ID NO: 164, respectively;

(tt) SEQ ID NO: 135 and SEQ ID NO: 164, respectively;

(uu) SEQ ID NO: 134 and SEQ ID NO: 171, respectively;

(vv) SEQ ID NO: 135 and SEQ ID NO: 171, respectively;

(ww) SEQ ID NO: 136 and SEQ ID NO: 164, respectively;

(xx) SEQ ID NO: 137 and SEQ ID NO: 164, respectively;

(yy) SEQ ID NO: 136 and SEQ ID NO: 171, respectively;

(zz) SEQ ID NO: 137 and SEQ ID NO: 171, respectively;

(aaa) SEQ ID NO: 138 and SEQ ID NO: 164, respectively;

(bbb) SEQ ID NO: 139 and SEQ ID NO: 164, respectively;

(ccc) SEQ ID NO: 138 and SEQ ID NO: 170, respectively;

(ddd) SEQ ID NO: 139 and SEQ ID NO: 170, respectively;

(eee) SEQ ID NO: 140 and SEQ ID NO: 164, respectively;

(fff) SEQ ID NO: 141 and SEQ ID NO: 164, respectively;

(ggg) SEQ ID NO: 142 and SEQ ID NO: 171, respectively;

(hhh) SEQ ID NO: 143 and SEQ ID NO: 171, respectively;

(iii) SEQ ID NO: 144 and SEQ ID NO: 164, respectively;

(jjj) SEQ ID NO: 145 and SEQ ID NO: 164, respectively;

(kkk) SEQ ID NO: 146 and SEQ ID NO: 164, respectively;

(lll) SEQ ID NO: 147 and SEQ ID NO: 164, respectively;

(mmm) SEQ ID NO: 148 and SEQ ID NO: 164, respectively;

(nnn) SEQ ID NO: 149 and SEQ ID NO: 164, respectively;

(ooo) SEQ ID NO: 150 and SEQ ID NO: 170, respectively;

(ppp) SEQ ID NO: 151 and SEQ ID NO: 170, respectively;

(qqq) SEQ ID NO: 152 and SEQ ID NO: 172, respectively;

(rrr) SEQ ID NO: 153 and SEQ ID NO: 172, respectively;

(sss) SEQ ID NO: 154 and SEQ ID NO: 173, respectively;

(ttt) SEQ ID NO: 155 and SEQ ID NO: 173, respectively;

(uuu) SEQ ID NO: 156 and SEQ ID NO: 174, respectively;

(vvv) SEQ ID NO: 157 and SEQ ID NO: 174, respectively;

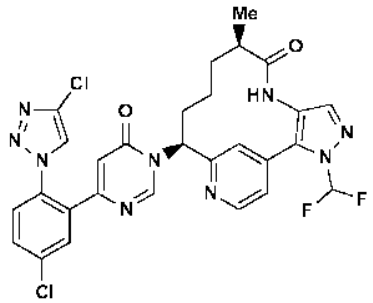
(www) SEQ ID NO: 158 and SEQ ID NO: 175, respectively;

(xxx) SEQ ID NO: 159 and SEQ ID NO: 175, respectively;

(yyy) SEQ ID NO: 158 and SEQ ID NO: 174, respectively; and

(zzz) SEQ ID NO: 159 and SEQ ID NO: 174, respectively;

wherein said isolated antigen binding peptide specifically binds to the compound of Formula (II):



(II).

9. The isolated antigen binding peptide of claim 8, comprising sequences SEQ ID NO: 106 and SEQ ID NO: 164, respectively.

10. The isolated antigen binding peptide of claim 9, wherein the isolated antigen binding peptide is an antibody Fab fragment.

11. The isolated antigen binding peptide of claim 8, comprising sequences SEQ ID NO: 180 and SEQ ID NO: 164, respectively.

12. The isolated antigen binding fragment of claim 11, wherein the antigen binding peptide is an antibody tandem Fab fragment.

13. An isolated polynucleotide comprising a nucleic acid sequence encoding the antigen binding peptide or the antibody Fab fragment or the antibody tandem Fab fragment of any one of claims 1-12.

14. A vector comprising the isolated polynucleotide of claim 13.

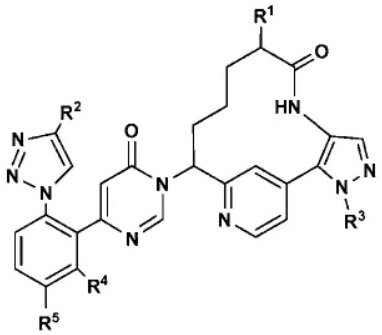
15. A host cell comprising the vector of claim 14.

16. A method of making an antigen binding peptide or an antibody Fab fragment or an antibody tandem Fab fragment comprising (a) culturing the host cell of claim 15 under culture conditions that promote protein production such that the host cell produces the antigen binding peptide or the antibody Fab fragment or the antibody tandem Fab fragment, and (b) isolating said antigen binding peptide or said antibody Fab fragment or said antibody tandem Fab fragment from said culture.

17. A detection reagent comprising the isolated antigen binding peptide or the isolated antibody Fab fragment or the isolated antibody tandem Fab fragment of any one of claims 1-12 and a detectable label.

18. Use of the isolated antigen binding peptide or the isolated antibody Fab fragment or the isolated antibody tandem Fab fragment of any one of claims 1-12 in the manufacture of a medicament for reducing the antithrombotic effect of the compound of Formula (I) or a stereoisomer or a tautomer thereof, wherein a pharmaceutically effective dose of the

isolated antigen binding peptide or the isolated antibody Fab fragment or the isolated antibody tandem Fab fragment is to be administered in a subject in need thereof, wherein:



(I)

R^1 is C_{1-4} alkyl;

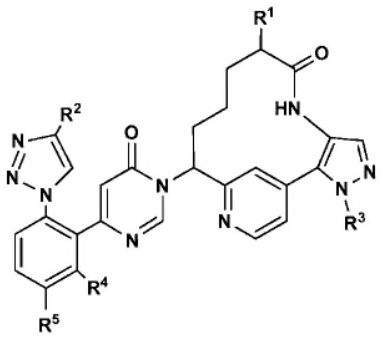
R^2 is independently selected from F, Cl, CF_3, CHF_2, CH_2F, CH_3;

R^3 is independently selected from CF_3, CHF_2, CH_2F, and CH_3;

R^4 is H; and

R^5 is independently selected from F and Cl.

19. A method of detecting the level of a compound of Formula (I) or a stereoisomer, a tautomer, or a pharmaceutically acceptable salt thereof, in a biological sample, wherein:



(I)

R^1 is C_{1-4} alkyl;

R^2 is independently selected from F, Cl, CF_3, CHF_2, CH_2F, CH_3;

R^3 is independently selected from CF_3, CHF_2, CH_2F, and CH_3;

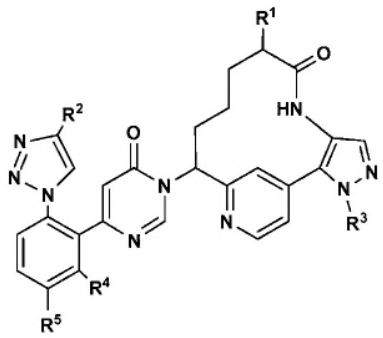
R^4 is H; and

R^5 is independently selected from F and Cl; the method comprising:

(a) contacting the biological sample with the isolated antigen binding peptide or the isolated antibody Fab fragment or the isolated the antibody tandem Fab fragment of any one of claims 1-12, and

(b) detecting the level of a bound complex of the compound and the isolated antigen binding peptide or the isolated antibody Fab fragment or the isolated the antibody tandem Fab fragment.

20. Use of the isolated antigen binding peptide or the isolated antibody Fab fragment or the isolated antibody tandem Fab fragment of any one of claims 1-12 in the manufacture of a medicament for binding a compound of Formula (I) or a stereoisomer or a tautomer thereof, in a subject who is taking therapeutically effective amount of the compound of Formula (I) or a stereoisomer or a tautomer thereof, wherein a pharmaceutically effective dose of the isolated antigen binding peptide or the isolated antibody Fab fragment or the isolated antibody tandem Fab fragment is to be administered to the subject, wherein



(I)

R^1 is C_{1-4} alkyl;

R^2 is independently selected from F, Cl, CF_3, CHF_2, CH_2F, CH_3;

R^3 is independently selected from CF_3, CHF_2, CH_2F, and CH_3;

R^4 is H; and

R^5 is independently selected from F and Cl.