What is claimed is:

1. An isolated antibody or antigen-binding fragment thereof that specifically binds to an epitope in Kunitz Domain 2 (K2) of Tissue Factor Pathway Inhibitor (TFPI), wherein the antibody is selected from the group consisting of an antibody comprising:

(a) a heavy chain variable region (VH) comprising a VH complementarity determining region one (CDR-H1) comprising the amino acid sequence of SEQ ID NO:38, a CDR-H2 comprising the amino acid sequence of SEQ ID NO:39, and a CDR-H3 comprising the amino acid sequence of SEQ ID NO:40; and a light chain variable region (VL) comprising a VL complementarity determining region one (CDR-L1) comprising the amino acid sequence of SEQ ID NO:33, a CDR-L2 comprising the amino acid sequence of SEQ ID NO:34, and a CDR-L3 comprising the amino acid sequence of SEQ ID NO:35;

(b) a VH comprising the amino acid sequence of SEQ ID NO:63 and a VL comprising the amino acid sequence of SEQ ID NO:36;

(c) a VH comprising the amino acid sequence of SEQ ID NO: 41 and a VL comprising the amino acid sequence of SEQ ID NO: 36; (d) a heavy chain comprising the amino acid sequence of SEQ ID NO: 64 and a light chain comprising the amino acid sequence of SEQ ID NO: 37; and (e) a heavy chain comprising the amino acid sequence of SEQ ID NO: 42 and a light chain comprising the amino acid sequence of SEQ ID NO: 37.

2. The antibody, or antigen-binding fragment thereof, of claim 1, wherein the antibody, or antigen-binding fragment thereof, comprises a VH comprising the amino acid sequence of SEQ ID NO:63 and a VL comprising the amino acid sequence of SEQ ID NO:36.

3. An isolated antibody or antigen-binding fragment thereof that specifically binds the K2 of TFPI, wherein said antibody or antigen-binding fragment consists of a heavy chain consisting of the amino acid sequence of SEQ ID NO: 64 and a light chain consisting of the amino acid sequence of SEQ ID NO: 37.

4. An isolated antibody or antigen-binding fragment thereof that specifically binds the K2 of TFPI, wherein said antibody or antigen-binding fragment comprises the CDR-H1, CDR-H2, and CDR-H3 sequences of SEQ ID NO: 63, and the CDR-L1, CDR-L2, and CDR-L3 sequences of SEQ ID NO: 36.

5. The antibody or antigen-binding fragment thereof of any one of claims 1-4, wherein said epitope comprises residues Ile105, Arg107, Leu131, Cys106, Gly108, Cys130, Gly132, Asp102, Arg112, Tyr127, Gly129, Met134, and Glu138, according to the numbering of SEQ ID NO:2

6. An isolated monoclonal antibody that competes for binding to TFPI or binds the same epitope as an antibody, or antigen-binding fragment thereof, of claim 1, or both competes for binding to TFPI and binds the same epitope as an antibody, or antigen-binding fragment of claim 1.

7. The antibody, or antigen-binding fragment thereof, of any one of claims 1-4, wherein said antibody, or antigen-binding fragment thereof, binds to TFPI with a binding affinity (Kd) value of from $1x10^{-8}$ M to $1x10^{-10}$ M.

8. The antibody or antigen-binding fragment thereof of any one of claims 1-4, wherein said antibody or antigen-binding fragment thereof which comprises (a): (i) decreases clotting time as measured in a plasma based dilute prothrombin time assay; (ii) reduces clotting time in whole blood as measured by thromboelastrography; (iii) increases thrombin generation; (iv) increases FXa activity in the presence of TFPI; (v) enhances platelet accumulation in the presence of TFPI; (vi) increases fibrin generation in the presence of TFPI; or (vii) any combination thereof.

9. The antibody or antigen-binding fragment thereof of claim 8, wherein said plasma or whole blood is deficient in Factor VIII or Factor IX.

10. An isolated nucleic acid molecule comprising a nucleotide sequence encoding the antibody or antigen-binding fragment thereof of any one of claims 1-4.

11. The nucleic acid molecule of claim 10, wherein the nucleotide sequence encodes a VH comprising a CDR-H1 comprising the amino acid sequence of SEQ ID NO:38, a CDR-H2 comprising the amino acid sequence of SEQ ID NO:39, and a CDR-H3 comprising the amino acid sequence of SEQ ID NO:40, and a VL comprising a CDR-L1 comprising the amino acid sequence of SEQ ID NO:33, a CDR-L2 comprising the amino acid sequence of SEQ ID NO:34, and a CDR-L3 comprising the amino acid sequence of SEQ ID NO:35.

12. The nucleic acid molecule of claim 11, wherein the nucleotide sequence encodes a VH comprising the amino acid sequence of SEQ ID NO:63 and a VL comprising the amino acid sequence of SEQ ID NO:36.

13. The nucleic acid molecule of claim 10, comprising a nucleotide sequence selected from the group consisting of:

(a) the sequence of SEQ ID NO:175;

(b) the sequence of SEQ ID NO:176;

(c) the sequence of SEQ ID NO:177;

(d) the sequence of SEQ ID NO:178;

(e) the sequence of the insert present in the plasmid deposited under ATCC Accession No. PTA-122328; and

(f) the sequence of the insert present in the plasmid deposited under ATCC Accession No. PTA-122329.

14. A pharmaceutical composition for treating uncontrolled bleeding comprising an antibody or antigen-binding fragment thereof of any one of claims 1-4, and a pharmaceutically acceptable carrier or excipient

15. A pharmaceutical composition for treating uncontrolled bleeding in a subject in need thereof, comprising a therapeutically effective amount of the antibody or antigen-binding fragment thereof of any one of claims 1-4.

16. A pharmaceutical composition for treating uncontrolled bleeding in a subject in need thereof, comprising a therapeutically effective amount of the antibody or antigen-binding fragment thereof of claim 2.

17. A pharmaceutical composition for treating uncontrolled bleeding in a subject in need thereof, comprising a therapeutically effective amount of the antibody or antigen-binding fragment thereof of claim 3.

18. A pharmaceutical composition for shortening bleeding time in a subject in need thereof, comprising a therapeutically effective amount of the antibody or antigen-binding fragment thereof of any one of claims 1-4.

19. A pharmaceutical composition for shortening bleeding time in a subject in need thereof, comprising a therapeutically effective amount of the antibody or antigen-binding fragment thereof of claim 2.

20. A pharmaceutical composition for shortening bleeding time in a subject in need thereof, comprising a therapeutically effective amount of the antibody or antigen-binding fragment thereof of claim 3.

21. The pharmaceutical composition of claim 15, wherein said subject suffers from or is susceptible to hemophilia A, hemophilia B, von Willebrand Disease (vWD), or a platelet disorder.

22. The pharmaceutical composition of claim 20, wherein said subject suffers from or is susceptible to hemophilia A, hemophilia B, von Willebrand Disease (vWD), or a platelet disorder.

23. The pharmaceutical composition of claim 15, further comprising a therapeutically effective amount of FVIIa.

24. The pharmaceutical composition of claim 20, further comprising a therapeutically effective amount of FVIIa.

25. A pharmaceutical composition for shortening bleeding time in a subject in need thereof, ~~said~~ comprising a therapeutically effective amount of the antibody of any one of claims 1-4, or antigen-binding fragment thereof, and a clotting agent.

26. The pharmaceutical composition of claim 25, wherein said subject suffers from or is susceptible to hemophilia A or hemophilia B and said clotting agent is selected from the group consisting of factor VIIa, factor VIII, factor IX and tranexamic acid.

27. The pharmaceutical composition of claim 26, comprising the antibody, or antigen-binding fragment thereof, of claim 3.