WHAT IS CLAIMED IS:

1. A humanized antibody or fragment thereof specifically recognizing platelet glycoprotein I(b)α (GPIbα), wherein a Fc moiety is present or absent,

wherein the humanized antibody ~~lacks a Fc moiety and~~or fragment thereof:

- is capable of preventing platelet activation, aggregation, and/or thrombus growth;
- lacks the ability to activate platelets;
- lacks the ability to induce thrombocytopenia; and/or
- at a therapeutic dose, lacks the ability to prolong bleeding time~~.~~;

wherein the humanized antibody or fragment thereof has a heavy chain and/or a light chain,

and wherein the humanize antibody or fragment thereof comprises one or more of :

- a first heavy chain CDR having the amino acid sequence of SEQ ID NO: 37, a variant thereof or a fragment thereof;
- a second heavy chain CDR having the amino acid sequence of SEQ ID NO: 38, a variant thereof or a fragment thereof;
- a third heavy chain CDR having the amino acid sequence of SEQ ID NO: 39, a variant thereof or a fragment thereof;
- a first light chain CDR having the amino acid sequence of SEQ ID NO: 65, a variant thereof or a fragment thereof;
- a second light chain CDR having the amino acid sequence of SEQ ID NO: 66, a variant thereof or a fragment thereof; and/or
- a third light chain CDR having the amino acid sequence of SEQ ID NO: 67, a variant thereof or a fragment thereof.

2. The humanized antibody or fragment thereof of claim 1 being capable of recognizing a human GPIbα, a mouse GPIbα, a dog GPIbα, a rat GPIbα, a rabbit GPIbα and/or a monkey GPIbα.

3. The humanized antibody or fragment thereof of claim 1 ~~or 2~~ being an antibody fragment.

4. The humanized antibody or fragment thereof of claim 3 being a $F(ab)_2$ fragment.

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5. The humanized antibody or fragment thereof of claim 3, wherein the antibody is a monovalent antibody.

6. The humanized antibody or fragment thereof of claim 5 being ~~is~~ a Fab antibody fragment.

7. The humanized antibody or fragment thereof of claim 5 being a single chain variable fragment (scFv).

~~8. The humanized antibody of any one of claims 1 to 7 having a heavy chain.~~

~~9. The humanized antibody of claim 8, wherein the heavy chain comprises:~~

~~– a first CDR having an amino acid sequence of GFTFSSFAMS (SEQ ID NO: 37), a variant thereof or a fragment thereof;~~

~~– a second CDR having an amino acid sequence of SITSAGTPYYPDSVLG (SEQ ID NO: 38), a variant thereof or a fragment thereof; and/or~~

~~– a third CDR having an amino acid sequence of SRGYEDYFDY (SEQ ID NO: 39), a variant thereof or a fragment thereof.~~

~~13.~~8. The humanized antibody or fragment thereof of claim ~~8 or 9~~1, wherein the heavy chain further comprises a CH1 region of a human IgG_1 antibody, wherein the CH1 region of the human IgG_1 antibody has the amino acid sequence of SEQ ID NO: 40, 47, 54 or 61, a variant thereof or a fragment thereof.

~~14. The humanized antibody of claim 10, wherein the CH1 region of the human IgG_1 antibody has the amino acid sequence of SEQ ID NO: 40, 47, 54 or 61, a variant thereof or a fragment thereof.~~

~~15.~~9. The humanized antibody or fragment thereof of claim ~~11~~8, wherein the heavy chain has the amino acid sequence of SEQ ID NO: 36, 43, 50 or 57, a variant thereof or a fragment thereof.

~~16. The humanized antibody of any one of claims 1 to 12 having a light chain.~~

~~17. The humanized antibody of claim 13, wherein the light chain comprises:~~

~~– a first CDR having an amino acid sequence of KSSQSLLNSRNQKNYLA (SEQ ID NO: 65), a variant thereof or a fragment thereof;~~

~~– a second CDR having an amino acid sequence of FTSTRES (SEQ ID NO: 66), a variant thereof or a fragment thereof; and/or~~

~~– a third CDR having an amino acid sequence of QQHYSSPWT (SEQ ID NO: 67), a variant thereof or a fragment thereof.~~

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~~21.~~10. The humanized antibody or fragment thereof of claim ~~13 or 14~~1, wherein the light chain further comprises a kappa chain C region of a human IgG_1 antibody, wherein the kappa chain C region has the amino acid sequence of SEQ ID NO: 68, 75, 82, or 89, a variant thereof or a fragment thereof.

~~22. The humanized antibody of claim 15, wherein the kappa chain C region has the amino acid sequence of SEQ ID NO: 68, 75, 82, or 89, a variant thereof or a fragment thereof.~~

~~23.~~11. The humanized antibody or fragment thereof of claim ~~16~~10, wherein the light chain has the amino acid sequence of SEQ ID NO: 64, 71, 78 or 85, a variant thereof or a fragment thereof.

~~24.~~12. The humanized antibody or fragment thereof of ~~any one of claims~~claim 1 ~~to 17~~, having:

- the heavy chain of SEQ ID NO: 36, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 64, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 36, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 71, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 36, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 78, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 36, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 85, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 43, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 64, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 43, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 71, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 43, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 78, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 43, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 85, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 50, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 64, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 50, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 71, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 50, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 78, a variant thereof or a fragment thereof;

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- the heavy chain of SEQ ID NO: 50, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 85, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 57, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 64, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 57, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 71, a variant thereof or a fragment thereof;
- the heavy chain of SEQ ID NO: 57, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 78, a variant thereof or a fragment thereof; or
- the heavy chain of SEQ ID NO: 57, a variant thereof or a fragment thereof and the light chain of SEQ ID NO: 85, a variant thereof or a fragment thereof.

~~25.~~13. A chimeric protein comprising the humanized antibody or fragment thereof of ~~any one of claims~~claim 1~~ to 18~~ and a carrier protein.

~~26.~~14. A pharmaceutical composition comprising (i) the humanized antibody or fragment thereof of ~~any one of claims~~claim 1~~ to 18~~ or the chimeric protein of claim ~~19~~13 and (ii) a pharmaceutical excipient.

~~27.~~15. A method of preventing or limiting the interaction between glycoprotein I(b)α (GPIbα) present on a platelet and a GPIbαligand, the method comprising contacting the humanized antibody or fragment thereof of ~~any one of claims~~claim 1~~ to 18~~ the chimeric protein of claim ~~19~~13 or the pharmaceutical composition of claim ~~20~~14 with the platelet.

~~28.~~16. The method of claim ~~21~~15 for preventing or limiting platelet activation.

~~29.~~17. The method of claim ~~21 or 22~~15, wherein the GPIbαligand is von Willebrand factor (VWF~~)~~), P-selectin, kininogen, thrombospondin and/or thrombin.

~~30.~~18. The method of ~~any one of claims 21 to 23~~claim 15, wherein the contacting occurs under ~~low or~~ high or low shear rates.

~~31.~~19. The method of ~~any one of claims 21 to 24~~claim 15, wherein the humanized antibody, the chimeric protein or the pharmaceutical composition is contacted with the platelet prior to, at the same time or after the GPIbαligand is contacted with the platelet.

~~32.~~20. The method of ~~any one of claims 21 to 25~~claim 15 for preventing or limiting the interaction *in vivo* in a subject in need thereof.

~~33.~~21. The method of claim ~~26~~ 20 for preventing the formation or the growth of a thrombus in the subject in need thereof, for reducing the size of a thrombus, or for reducing the

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number of thrombi, or fordissolving an occluded thrombus in the subject in need thereof.

~~34. The method of claim 26 for reducing the size of a thrombus or the number of thrombi in the subject in need thereof.~~

~~35.~~22. The method of ~~any one of claims 26 to 28~~claim 20 further comprising determining the presence, the location and/or the size of the thrombus in the subject.

~~36.~~23. The method of ~~any one of claims 26 to 28~~claim 20, wherein the subject is at risk of experiencing or has experienced a pathological thrombosis.

~~37.~~24. The method of ~~any one of claims 26 to 28~~claim 20, wherein the subject is at risk of experiencing or has experienced an ischemic stroke, a thrombotic thrombocytopenic purpura, a myocardial infarct, an acute coronary syndrome, atherothrombosis, a peripheral vascular disease, deep vein thrombosis, sepsis, and/or a vascular inflammation.

~~38.~~25. The method of ~~any one of claims 26 to 28~~claim 20 for reducing or limiting tumor metastasis in the subject in need thereof.

~~39.~~26. The method of claim ~~32~~25 further comprising determining the presence, the location and/or the size of the tumor metastasis in the subject.

27. The humanized antibody or fragment thereof of claim 1, lacking a Fc moiety.

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