8. Antibody or antigen-binding fragment thereof according to claim 6 which is a humanized antibody.

9. Antibody or antigen-binding fragment thereof according to claim 8 comprising a heavy chain and a light chain, wherein said heavy chain has an amino acid sequence as shown in SEQ ID NO:34 and said light chain has an amino acid sequence as shown in SEQ ID NO:35.

10. Antibody or antigen-binding fragment thereof according to claim 8,comprising a heavy chain and a light chain, wherein said heavy chain comprises a constant region of an IgG4 heavy chain as set forth in SEQ ID NO:34 and said light chain comprises a constant region of an IgG4 light chain as set forth in SEQ ID NO:35.

11. Antibody or antigen-binding fragment thereof according to claim 10, wherein said heavy chain and/or light chain further comprise a variable region comprising one or more, preferably all, framework regions of an IgG4 heavy chain as set forth in SEQ ID NO:34 and/or of an IgG4 light chain as set forth in SEQ ID NO:35.

12. An antibody or antigen-binding fragment thereof according to any one of claims 1-11 for use in improving angiogenesis, preferably after tissue injury.

13. Antibody an antigen-binding fragment thereof for use according to claim 12, wherein angiogenesis is improved in a subject suffering from ischemic disease, preferably in ischemic tissue of said subject.

14. Use of an antibody or antigen-binding fragment thereof according to any one of claims 1-11 in the manufacture of a medicament~~A method~~ for stimulating angiogenesis in a subject ~~in need thereof comprising administering to said subject a therapeutically effective amount of an antibody or antigen-binding fragment thereof according to any one of claims 1-11~~.

15. ~~Method~~ Use according to claim 14 wherein said subject is suffering from ischemic disease, and preferably wherein angiogenesis is improved in ischemic tissue of said

16. A nucleic acid molecule encoding the antibody or antigen-binding fragment thereof according to any one of claims 1-11.

17. A vector comprising the nucleic acid molecule of claim 16.

18. Vector according to claim 17, which is a gene therapy vector.

19. A host cell comprising the nucleic acid molecule of claim 16 or the vector of claims 17 or 18.

20. Host cell according to claim 19, which is a mammalian host cell.

21. Host cell according to any one of claims 19 or 20, which is a hybridoma.

22. A pharmaceutical composition comprising an agent selected from the group consisting of (a) the antibody or antigen-binding fragment thereof according to any one of claims 1-11, (b) a nucleic acid molecule according to claim 16, (c) a vector according to any one of claims 17-18 and (d) a host cell according to any one of claims 19-21, and a pharmaceutical acceptable carrier.

23. Antibody or antigen-binding fragment thereof according to any one of claims 1-11 or pharmaceutical composition according to claim 22 for use as a medicament.

24. Use of an ~~A~~antibody or antigen-binding fragment thereof according to any one of claims 1-11 or pharmaceutical composition according to claim 22 ~~for use~~ in the manufacture of a medicament for~~in~~ the treatment, prevention or prevention of the progression of adverse cardiac remodelling and/or conditions resulting from or relating to myocardial infarction and/or pressure-overload.

25. Use of an ~~A~~antibody or antigen-binding fragment thereof according to any one of claims 1-11 or pharmaceutical composition according to claim 22 in the manufacture of a medicament for ~~use in~~ the treatment, prevention or prevention of the progression of adverse tissue remodelling.

26. Use of an agent selected from the group consisting of (a) the antibody or antigen-binding fragment thereof according to any one of claims 1-11, (b) a nucleic acid molecule according to claim 16, (c) a vector according to any one of claims 17-18 and (d) a host cell according to any one of claims 19-21 in the manufacture of a medicament for~~A method of~~ treating, preventing or preventing progression adverse cardiac remodelling and/or conditions resulting from or relating to myocardial infarction and/or pressure-overload~~, which comprises administering to a subject in need thereof, a therapeutically effective amount of an agent selected from the group consisting of (a) the antibody or antigen-binding fragment thereof according to any one of claims 1-11, (b) a nucleic acid molecule according to claim 16, (c) a vector according to any one of claims 17-18 and (d) a host cell according to any one of claims 19-21~~.

27. Antibody that binds fibronectin-EDA or antigen-binding fragment thereof for use according to claim 12 or 13, or ~~method~~ use according to any one of claims 14, 15, or 26, wherein the subject is human.

leukocytes, lymphocytes and fibroblasts). Subsequently, cells activated by fibronectin-EDA induce detrimental inflammatory reactions in the healing heart.

Cellular fibronectin is a multifunctional adhesive glycoprotein present in the ECM and is produced by cells in response to tissue injury as occurs with MI. It contains an alternatively spliced exon encoding type III repeat extra domain A (EIIIA; EDA), that acts as an endogenous ligand for both TLR2 and TLR4 and integrin α4β1, α4β7 and α9β1. *In vitro*, fibronectin-EDA induces pro-inflammatory gene expression and activates monocytes. *In vivo* injection of fibronectin-EDA in murine joints results in enhanced inflammation. Fibronectin-EDA is not normally expressed in healthy human tissue, but is highly upregulated in newly developing vasculature during embryogenesis and in several (pathological) conditions such as (cardiac) ischemic tissue, atherosclerotic lesions, fibrotic tissue, tumors, transplant rejection and wounds. Overexpression of EDA results in enhanced inflammation and injury after brain ischemia. Thus, fibronectin-EDA is capable of activating leukocytes and cause an upregulation of cytokines and chemokines. It was recently shown that fibronectin-EDA knockout mice exhibited reduced fibrosis, preserved cardiac function and reduced ventricular dilatation compared to wild-type mice after myocardial infarction (Arslan F. et al. Circ. Res., Mar 2011; 108: 582 – 592). WO2012/057613 describes that treatment of mice with antibodies directed to the EDA domain of fibronectin-EDA prevents left ventricular dilatation in said mice and improves survival after myocardial infarction.

There remains a need in the art for antibodies that are capable of treating, preventing, or preventing the progression of myocardial infarction-related conditions in a subject and that increase the chance of survival of a subject after myocardial infarction. It is an object of the present invention to provide for such antibodies.

Summary ~~**of the invention**~~

The present ~~invention provides~~disclosure describes an isolated immunoglobulin (Ig)-like molecule or antigen-binding fragment thereof specifically binding to an amino acid sequence GIXXXF (SEQ ID NO:1), wherein X may be any amino acid. In one aspect, the present invention refers to an antibody that binds the EDA domain of fibronectin-EDA or antigen-binding fragment thereof comprising a heavy chain variable region comprising: a CDRl having the amino acid sequence GYSIX$_1$SGYSWH, wherein X$_1$ is selected from T and A; a CDR2 having the amino acid sequence YIHX$_2$SGX3ANYNPSLKS, wherein X$_2$ is selected from Y and F, and wherein X$_3$ is selected from S and I; and a CDR3 having the amino acid sequence EX$_4$X$_5$GX$_6$FDY, wherein X$_4$ is selected from K and A, X$_5$ is selected from T and R, and X$_6$ is selected from F and Y; and a light chain variable region

comprising: a CDRl having the amino acid sequence RSSQSX$_7$VX$_8$SNGNTYLX$_9$, wherein X$_7$ is selected from L and I, X$_8$ is selected from H and R, and X$_9$ is selected from H and T; a CDR2 having the amino acid sequence KVSNRFS; and a CDR3 having the amino acid sequence X$_{10}$QX$_{11}$X$_{12}$HVPPT, wherein X$_{10}$ is selected from S and F, X$_{11}$ is selected from S and G, and X$_{12}$ is selected from A and S. In another aspect, the present invention refers to an antibody that binds the EDA domain of fibronectin-EDA or antigen-binding fragment thereof comprising a heavy chain variable region comprising: a CDRl having the amino acid sequence shown in SEQ ID NO:9; a CDR2 having the amino acid sequence shown in SEQ ID NO:10; and a CDR3 having the amino acid sequence shown in SEQ ID NO:11; and a light chain variable region comprising: a CDRl having the amino acid sequence shown in SEQ ID NO:12; a CDR2 having the amino acid sequence shown in SEQ ID N0:13; and a CDR3 having the amino acid sequence shown in SEQ ID NO:14. In another aspect, the present invention refers to an antibody that binds the EDA domain of fibronectin-EDA or antigen-binding fragment thereof comprising a heavy chain variable region comprising: a CDR1 having the amino acid sequence shown in SEQ ID NO:3; a CDR2 having the amino acid sequence shown in SEQ ID NO:4; and a CDR3 having the amino acid sequence shown in SEQ ID NO:5; and a light chain variable region comprising: a CDRl having the amino acid sequence shown in SEQ ID NO:6; a CDR2 having the amino acid sequence shown in SEQ ID NO:7; and a CDR3 having the amino acid sequence shown in SEQ ID NO:8. In yet another aspect, the present invention refers to an antibody that binds the EDA domain of fibronectin-EDA or antigen-binding fragment thereof comprising a heavy chain variable region comprising: a CDR1 having the amino acid sequence shown in SEQ ID NO:15; a CDR2 having the amino acid sequence shown in SEQ ID NO:16; and a CDR3 having the amino acid sequence shown in SEQ ID NO:17; and a light chain variable region comprising: a CDRl having the amino acid sequence shown in SEQ ID NO: 18; a CDR2 having the amino acid sequence shown in SEQ ID NO: 19; and a CDR3 having the amino acid sequence shown in SEQ ID NO:20.

In an ~~embodiment~~example, the amino acid at position 3 of SEQ ID NO:1 is selected from histidine, arginine, lysine and alanine, and preferably is histidine.

In an example~~embodiment~~, the amino acid at position 4 of SEQ ID NO: 1 is selected from glutamic acid and alanine, and preferably is glutamic acid.

In an example~~embodiment~~, the amino acid at position 5 of SEQ ID NO:1 is selected from leucine and alanine, and preferably is leucine.

In an exampleembodiment, the Ig-like molecule or fragment thereof specifically binds to an amino acid sequence GIHELF (SEQ ID NO:2).

The present invention disclosure further provides disclosesan isolated immunoglobulin (Ig)-like molecule or antigen-binding fragment thereof specifically binding to an amino acid sequence LFPAP (SEQ ID NO:28).

The Ig-like molecule or antigen-binding fragment thereof may be an antibody, e.g., a monoclonal antibody. The Ig-like molecule or antigen-binding fragment thereof may be of murine origin, e.g., may be derived from a mouse. The Ig-like molecule or antigen-binding fragment thereof may be chimeric, humanized or human.

The invention disclosure also pertains to an Ig-like molecule or antigen-binding fragment thereof comprising a heavy chain variable region comprising a complementarity determining region (CDR)1 having the amino acid sequence shown in SEQ ID NO:3 or an amino acid sequence as shown in SEQ ID NO:3, wherein at most 2, preferably at most 1 amino acid is substituted, a CDR2 having the amino acid sequence shown in SEQ ID NO:4 or an amino acid sequence as shown in SEQ ID NO:4, wherein at most 2, preferably at most 1 amino acid is substituted, and a CDR3 having the amino acid sequence shown in SEQ ID NO:5 or an amino acid sequence as shown in SEQ ID NO:5, wherein at most 3, preferably at most 2, more preferably at most 1 amino acid is substituted.

In an exampleembodiment, the present invention relates disclosure describes to an Ig-like molecule or antigen-binding fragment thereof comprising a heavy chain variable region comprising:

- a CDR1 having the amino acid sequence GYSIX$_1$SGYSWH, wherein X$_1$ is selected from T and A;
- a CDR2 having the amino acid sequence YIHX$_2$SGX$_3$ANYNPSLKS, wherein X$_2$ is selected from Y and F, and wherein X$_3$ is selected from S and I;
- a CDR3 having the amino acid sequence EX$_4$X$_5$GX$_6$FDY, wherein X$_4$ is selected from K and A, X$_5$ is selected from T and R, and X$_6$ is selected from F and Y.

The present invention disclosure also relates describesto an Ig-like molecule or antigen-binding fragment thereof comprising a light chain variable region comprising a CDR1 having the amino acid sequence shown in SEQ ID NO:6 or an amino acid sequence as shown in SEQ ID NO:6, wherein at most 3, preferably at most 2, more preferably at most 1 amino acid is substituted, a CDR2 having the amino acid sequence shown in SEQ ID NO:7 or an amino acid sequence as shown in SEQ ID NO:7, wherein at most 2, preferably at most 1 amino acid is substituted, and a CDR3 having the amino acid sequence shown in SEQ ID NO:8 or an amino acid sequence as shown in SEQ ID NO:8, wherein at most 3, preferably at most 2, more preferably at most 1 amino acid is substituted.

In an exampleembodiment, the present invention providesthere is disclosed an Ig-like molecule or antigen-binding fragment thereof comprising a light chain variable region comprising:

- a CDR1 having the amino acid sequence RSSQSX$_7$VX$_8$SNGNTYLX$_9$, wherein X$_7$ is selected from L and I, X$_8$ is selected from H and R, and X$_9$ is selected from H and T;
- a CDR2 having the amino acid sequence KVSNRFS;
- a CDR3 having the amino acid sequence X$_{10}$QX$_{11}$X$_{12}$HVPPT, wherein X$_{10}$ is selected from S and F, X$_{11}$ is selected from S and G, and X$_{12}$ is selected from A and S.

The present invention disclosure further relates todescribes an Ig-like molecule or antigen-binding fragment thereof comprising a heavy chain variable region comprising a CDR1 having the amino acid sequence shown in SEQ ID NO:3 or an amino acid sequence as shown in SEQ ID NO:3, wherein at most 2, preferably at most 1 amino acid is substituted, a CDR2 having the amino acid sequence shown in SEQ ID NO:4 or an amino acid sequence as shown in SEQ ID NO:4, wherein at most 2, preferably at most 1 amino acid is substituted, and a CDR3 having the amino acid sequence shown in SEQ ID NO:5 or an amino acid sequence as shown in SEQ ID NO:5, wherein at most 3, preferably at most 2, more preferably at most 1 amino acid is substituted; and a light chain variable region comprising a CDR1 having the amino acid sequence shown in SEQ ID NO:6 or an amino acid sequence as shown in SEQ ID NO:6, wherein at most 3, preferably at most 2, more preferably at most 1 amino acid is substituted, a CDR2 having the amino acid sequence shown in SEQ ID NO:7 or an amino acid sequence as shown in SEQ ID NO:7, wherein at most 2, preferably at most 1 amino acid is substituted, and a CDR3 having the amino acid sequence shown in SEQ ID NO:8 or an amino acid sequence as shown in SEQ ID NO:8, wherein at most 3, preferably at most 2, more preferably at most 1 amino acid is substituted.

In an exampleembodiment, such Ig-like molecule or antigen-binding fragment comprises a heavy chain variable region comprising

- a CDR1 having the amino acid sequence GYSIX$_1$SGYSWH, wherein X$_1$ is selected from T and A;
- a CDR2 having the amino acid sequence YIHX$_2$SGX$_3$ANYNPSLKS, wherein X$_2$ is selected from Y and F, and wherein X$_3$ is selected from S and I;
- a CDR3 having the amino acid sequence EX$_4$X$_5$GX$_6$FDY, wherein X$_4$ is selected from K and A, X$_5$ is selected from T and R, and X$_6$ is selected from F and Y;

and a light chain variable region comprising:

- a CDR1 having the amino acid sequence RSSQSX$_7$VX$_8$SNGNTYLX$_9$, wherein X$_7$ is selected from L and I, X$_8$ is selected from H and R, and X$_9$ is selected from H and T;
- a CDR2 having the amino acid sequence KVSNRFS;

- a CDR3 having the amino acid sequence $X_{10}QX_{11}X_{12}HVPPT$, wherein X_{10} is selected from S and F, X_{11} is selected from S and G, and X_{12} is selected from A and S.

In one example~~embodiment~~, the Ig-like molecule, antibody or antigen-binding fragment thereof comprises a heavy chain variable region comprising:

- a CDR1 having the amino acid sequence shown in SEQ ID NO:9;
- a CDR2 having the amino acid sequence shown in SEQ ID NO:10; and
- a CDR3 having the amino acid sequence shown in SEQ ID NO:11;

and a light chain variable region comprising:

- a CDR1 having the amino acid sequence shown in SEQ ID NO:12;
- a CDR2 having the amino acid sequence shown in SEQ ID NO:13; and
- a CDR3 having the amino acid sequence shown in SEQ ID NO:14.

Preferably, said Ig-like molecule, antibody or antigen-binding fragment thereof comprises a humanized heavy chain variable region of the heavy chain variable region having the amino acid sequence of SEQ ID NO:40 and a humanized light chain variable region of the light chain variable region having the amino acid sequence of SEQ ID NO:41.

In another example~~embodiment~~, the Ig-like molecule, antibody or antigen-binding fragment thereof comprises a heavy chain variable region comprising:

- a CDR1 having the amino acid sequence shown in SEQ ID NO:3;
- a CDR2 having the amino acid sequence shown in SEQ ID NO:4; and
- a CDR3 having the amino acid sequence shown in SEQ ID NO:5;

and a light chain variable region comprising:

- a CDR1 having the amino acid sequence shown in SEQ ID NO:6;
- a CDR2 having the amino acid sequence shown in SEQ ID NO:7; and
- a CDR3 having the amino acid sequence shown in SEQ ID NO:8.

Preferably, said Ig-like molecule, antibody or antigen-binding fragment thereof comprises a humanized heavy chain variable region of the heavy chain variable region having the amino acid sequence of SEQ ID NO:38 and a humanized light chain variable region of the light chain variable region having the amino acid sequence of SEQ ID NO:39.

In yet another example~~embodiment~~, the Ig-like molecule, antibody or antigen-binding fragment thereof comprises a heavy chain variable region comprising:

- a CDR1 having the amino acid sequence shown in SEQ ID NO:15;
- a CDR2 having the amino acid sequence shown in SEQ ID NO:16; and
- a CDR3 having the amino acid sequence shown in SEQ ID NO:17;

and a light chain variable region comprising:

- a CDR1 having the amino acid sequence shown in SEQ ID NO:18;
- a CDR2 having the amino acid sequence shown in SEQ ID NO:19; and

- a CDR3 having the amino acid sequence shown in SEQ ID NO:20.

Preferably, said Ig-like molecule, antibody or antigen-binding fragment thereof comprises a humanized heavy chain variable region of the heavy chain variable region having the amino acid sequence of SEQ ID NO:42 and a humanized light chain variable region of the light chain variable region having the amino acid sequence of SEQ ID NO:43.

The present ~~invention~~ disclosure further ~~provides~~ describes an Ig-like molecule or antigen-binding fragment thereof comprising a heavy chain variable region comprising a complementarity determining region (CDR)1 having the amino acid sequence shown in SEQ ID NO:29 or an amino acid sequence as shown in SEQ ID NO:29 wherein at most 2, preferably at most 1 amino acid is substituted, a CDR2 having the amino acid sequence shown in SEQ ID NO:30 or an amino acid sequence as shown in SEQ ID NO:30, wherein at most 2, preferably at most 1 amino acid is substituted, and a CDR3 having the amino acid sequence SHY.

The ~~invention~~ disclosure also ~~provides~~ describes an Ig-like molecule or antigen-binding fragment thereof comprising a light chain variable region comprising a CDR1 having the amino acid sequence shown in SEQ ID NO:31 or an amino acid sequence as shown in SEQ ID NO:31, wherein at most 2, preferably at most 1 amino acid is substituted, a CDR2 having the amino acid sequence shown in SEQ ID NO:32 or an amino acid sequence as shown in SEQ ID NO:32, wherein at most 2, preferably at most 1 amino acid is substituted, and a CDR3 having the amino acid sequence shown in SEQ ID NO:33 or an amino acid sequence as shown in SEQ ID NO:33, wherein at most 2, preferably at most 1 amino acid is substituted.

In an example~~embodiment~~, Ig-like molecule or antigen-binding fragment thereof comprises a heavy chain variable region comprising a CDR1 having the amino acid sequence shown in SEQ ID NO:29 or an amino acid sequence as shown in SEQ ID NO:29, wherein at most 2, preferably at most 1 amino acid is substituted, a CDR2 having the amino acid sequence shown in SEQ ID NO:30 or an amino acid sequence as shown in SEQ ID NO:30, wherein at most 2, preferably at most 1 amino acid is substituted, and a CDR3 having the amino acid sequence SHY, and further comprising a light chain variable region comprising a CDR1 having the amino acid sequence shown in SEQ ID NO:31 or an amino acid sequence as shown in SEQ ID NO:31, wherein at most 2, preferably at most 1 amino acid is substituted, a CDR2 having the amino acid sequence shown in SEQ ID NO:32 or an amino acid sequence as shown in SEQ ID NO:32, wherein at most 2, preferably at most 1 amino acid is substituted, and a CDR3 having the amino acid sequence shown in SEQ ID NO:33 or an amino acid sequence as shown in SEQ ID NO:33, wherein at most 2,

preferably at most 1 amino acid is substituted. In one embodiment, the Ig-like molecule, antibody or antigen-binding fragment thereof comprises a heavy chain variable region comprising:

- a CDR1 having the amino acid sequence shown in SEQ ID NO:29;
- a CDR2 having the amino acid sequence shown in SEQ ID NO:30; and
- a CDR3 having the amino acid sequence SHY;

and a light chain variable region comprising:

- a CDR1 having the amino acid sequence shown in SEQ ID NO:31;
- a CDR2 having the amino acid sequence shown in SEQ ID NO:32; and
- a CDR3 having the amino acid sequence shown in SEQ ID NO:33.

Preferably, said Ig-like molecule, antibody or antigen-binding fragment thereof comprises a humanized heavy chain variable region of the heavy chain variable region having the amino acid sequence of SEQ ID NO:44 and a humanized light chain variable region of the light chain variable region having the amino acid sequence of SEQ ID NO:45.

In an example~~embodiment~~, the CDRs of the light chain and/or the heavy chain are integrated into human-derived framework regions.

The Ig-like molecule or antigen-binding fragment thereof may be an antibody, e.g., a chimeric antibody or a humanized antibody.

The ~~invention~~ disclosure also ~~provides~~ describes a nucleic acid molecule encoding the Ig-like molecule or antigen-binding fragment thereof taught herein, and a vector comprising such nucleic acid molecule. Such vector may be a gene therapy vector. In one aspect, the present invention refers to a nucleic acid molecule encoding the antibody or antigen-binding fragment thereof according as disclosed herein. In another aspect, the present invention refers to a vector comprising the nucleic acid molecule as disclosed herein.

Additionally, the ~~invention provides~~ disclosure describes a host cell comprising the nucleic acid molecule taught herein or the vector taught herein. The host cell may be a mammalian host cell. The host cell may be a hybridoma. In one aspect, the present invention refers to a host cell comprising the nucleic acid molecule as disclosed herein or the vector as disclosed herein.

The ~~invention~~ disclosure also ~~provides~~ describes a pharmaceutical composition comprising an agent selected from the group consisting of (a) the Ig-like molecule or antigen-binding fragment thereof as taught herein, (b) a nucleic acid molecule encoding the Ig-like molecule or antigen-binding fragment thereof, (c) a vector comprising such nucleic acid molecule and (d) a host cell comprising such nucleic acid molecule or such vector, and a pharmaceutically acceptable carrier. In one aspect, the present invention refers to a pharmaceutical composition comprising an agent selected from the group consisting of (a) the antibody or antigen-binding fragment thereof as disclosed herein, (b) a nucleic acid molecule as disclosed herein, (c) a vector as disclosed herein and (d) a host cell as disclosed herein, and a pharmaceutical acceptable carrier.

The ~~invention~~ disclosure further ~~provides~~ describes an Ig-like molecule or antigen-binding fragment thereof or pharmaceutical composition as taught herein for use as a medicament, particularly for use in the treatment, prevention or prevention of the progression of adverse cardiac remodelling and conditions resulting from or relating to myocardial infarction and/or

pressure overload, or for use in the treatment, prevention or prevention of the progression of adverse tissue remodelling, in particular fibronectin-EDA mediated adverse tissue remodelling. In one aspect, the present invention refers to an antibody or antigen-binding fragment as disclosed herein for use in improving angiogenesis, preferably after tissue injury. In another aspect, the present invention refers to use of an antibody or antigen-binding fragment thereof as disclosed herein in the manufacture of a medicament for stimulating angiogenesis in a subject.

The present ~~invention~~ disclosure further ~~provides~~ describes a method of treating, preventing or preventing progression of adverse cardiac remodelling and conditions resulting from or relating to myocardial infarction and/or pressure overload, which comprises administering to a subject in need thereof, a therapeutically effective amount of an agent selected from the group consisting of (a) the Ig-like molecule or antigen-binding fragment thereof as taught herein, a nucleic acid molecule encoding the Ig-like molecule or antigen-binding fragment thereof, (c) a vector comprising such nucleic acid molecule and (d) a host cell comprising such nucleic acid molecule or such vector. The subject may be human. In one aspect, the present invention refers to use of an antibody or antigen-binding fragment thereof as disclosed herein or pharmaceutical composition as disclosed herein in the manufacture of a medicament for the treatment, prevention or prevention of the progression of adverse cardiac remodelling and/or conditions resulting from or relating to myocardial infarction and/or pressure-overload. In another aspect, the present invention refers to use of an antibody or antigen-binding fragment thereof disclosed herein or pharmaceutical composition as disclosed herein in the manufacture of a medicament for the treatment, prevention or prevention of the progression of adverse tissue remodelling.In yet another aspect, the present invention refers to use of an agent selected from the group consisting of (a) the antibody or antigen-binding fragment as disclosed herein, (b) a nucleic acid molecule as disclosed herein, (c) a vector as disclosed herein and (d) a host cell as disclosed herein in the manufacture of a medicament for treating, preventing or preventing progression adverse cardiac remodelling and/or conditions resulting from or relating to myocardial infarction and/or pressure-overload.

The present ~~invention~~ disclosure further ~~provides~~ describes an antibody that binds fibronectin-EDA or an antigen-binding fragment thereof for use in improving angiogenesis and a method for improving angiogenesis comprising administering to a

subject in need thereof a therapeutically effective amount of an antibody that binds fibronectin-EDA or an antigen-binding fragment thereof. The subject may be human.

Detailed description of the invention

Immunoglobulin-like molecules, antibodies and antigen-binding fragments thereof

In a first aspect, the invention relates to an isolated Ig-like molecule or antigen-binding fragment thereof that specifically binds to the amino acid sequence GIXXXF (SEQ ID NO:1), wherein X can be any amino acid or to amino acid sequence LFPAP (SEQ ID NO:28).

The term "isolated" as used herein refer to material which is substantially or essentially free from components which normally accompany it in nature.

The term “immunoglobulin” (abbreviated as “Ig”) as used herein is well-known in the art and equals the term “antibody”. The term “Ig-like molecule” as used herein refers to any polypeptide comprising an antigen-binding site with at least one complementarity determining region (CDR). The term includes, but is not limited to polyclonal antibodies, monoclonal antibodies, monospecific antibodies, multispecific antibodies, humanized antibodies, chimeric antibodies, human antibodies, and single-chain antibodies (e.g., VHH). The term “Ig-like molecule” also includes antibody fragments such Fab, $F(ab')_2$, Fv, scFv, Fd, dAb, and other antibody fragments or other constructs comprising CDRs