

CLAIMS

1. An antibody comprising a heavy chain variable region polypeptide that is at least 90% identical to an amino acid sequence set forth in SEQ ID NO:95, and, a light chain variable region polypeptide that is at least 90% identical to an amino acid sequence set forth in SEQ ID NO:97, wherein the antibody binds and inhibits release of mature TGF β 1 growth factor from a protein complex comprising a pro/latent TGF β 1, and wherein the antibody comprises the following CDR-L1 sequence: RASQSISSYLN (SEQ ID NO: 88).
2. The antibody of claim 1, wherein the heavy chain variable region polypeptide is at least 95% identical to an amino acid sequence set forth in SEQ ID NO:95, and, the light chain variable region polypeptide is at least 95% identical to an amino acid sequence set forth in SEQ ID NO:97.
3. The antibody according to claim 1, comprising a heavy chain variable region polypeptide comprising an amino acid sequence set forth in SEQ ID NO:95, and a light chain variable region polypeptide comprising an amino acid sequence set forth in SEQ ID NO:97.
4. The antibody of claim 3, comprising a heavy chain variable region polypeptide consisting of an amino acid sequence set forth in SEQ ID NO:95, and a light chain variable region polypeptide consisting of an amino acid sequence set forth in SEQ ID NO:97.
5. The antibody of claim 1, wherein the antibody comprises a heavy chain polypeptide comprising an amino acid sequence set forth in SEQ ID NO:99, and a light chain polypeptide comprising an amino acid sequence set forth in SEQ ID NO:100.
6. The antibody of claim 5, wherein the antibody comprises a heavy chain polypeptide consisting of an amino acid sequence set forth in SEQ ID NO:99, and a light chain polypeptide consisting of an amino acid sequence set forth in SEQ ID NO:100.
7. The antibody of any one of claims 1-6, wherein the antibody is a monoclonal antibody.
8. The antibody of any one of claims 1-7, wherein the antibody is a fully human antibody or humanized antibody.
9. The antibody of any one of claims 1-8, wherein the antibody is a human IgG₄ antibody, wherein optionally the human IgG₄ antibody comprises a backbone substitution.

10. The antibody of any one of claims 1-9, wherein the antibody binds a protein complex comprising a pro/latent TGF β 1, wherein the protein complex further comprises a presenting molecule selected from the group consisting of: LTBP1, LTBP3, GARP and LRRC33.
11. A pharmaceutical composition comprising an antibody of any one of claims 1-10.
12. The pharmaceutical composition according to claim 11, further comprising at least one additional therapeutic agent.
13. Use of the antibody of any one of claims 1-10, or the pharmaceutical composition of claim 11 or claim 12 in the preparation of a medicament for treating a fibrotic indication or condition in a human subject in need of such treatment.
14. The use according to claim 13, wherein the fibrotic indication or condition is selected from the group consisting of idiopathic pulmonary fibrosis (IPF); chronic obstructive pulmonary disorder (COPD); allergic asthma; acute lung injury; eosinophilic esophagitis; pulmonary arterial hypertension; diabetic glomerulosclerosis; focal segmental glomerulosclerosis (FSGS); chronic kidney disease (CKD); fibrosis associated with kidney transplantation and chronic rejection, IgA nephropathy, and hemolytic uremic syndrome; non-alcoholic steatohepatitis (NASH); chronic viral hepatitis; parasitemia; alcohol fibrosis; non-alcoholic steatohepatitis-hepatocellular carcinoma (NASH-HCC); primary biliary cirrhosis; sclerosing cholangitis; cardiovascular fibrosis; systemic sclerosis, diffuse cutaneous systemic sclerosis; scleroderma, pathological skin scarring; keloid; postsurgical scarring; scar revision surgery; and radiation-induced scarring.
15. The use according to claim 13, wherein the fibrotic indication or condition is selected from the group consisting of IPF, COPD, pulmonary arterial hypertension, CKD, NASH, NASH-HCC, primary biliary cirrhosis and systemic sclerosis.
16. The use according to claim 13, wherein the human subject has an organ fibrosis, wherein optionally the organ fibrosis is liver fibrosis, lung fibrosis, kidney fibrosis, skin fibrosis and/or cardiac fibrosis, wherein further optionally the subject has an organ fibrosis and is not a candidate for organ transplantation.
17. The use according to claim 16, wherein the subject has a fibrotic disorder with chronic inflammation.
18. The use according to claim 17, wherein the fibrotic disorder is a muscular dystrophy, wherein optionally the muscular dystrophy is DMD.

19. The use according to any one of claims 13 to 18, wherein the antibody is used in combination with at least one additional therapeutic agent.
20. The use according to claim 19, wherein the additional therapeutic agent comprises a myostatin inhibitor, a VEGF agonist, an IGF1 agonist, an FXR agonist, a CCR2 inhibitor, a CCR5 inhibitor, a dual CCR2/CCR5 inhibitor, a lysyl oxidase-like-2 inhibitor, an ASK1 inhibitor, an Acetyl-CoA Carboxylase (ACC) inhibitor, a p38 kinase inhibitor, Pirfenidone, Nintedanib, a GDF11 inhibitor, or a JAK inhibitor.
21. The use according to claim 19, wherein the additional therapeutic agent comprises an ASK1 inhibitor, an FXR agonist, or an ACC inhibitor.
22. The pharmaceutical composition according to claim 12, wherein the additional therapeutic agent comprises a myostatin inhibitor, a VEGF agonist, an IGF1 agonist, an FXR agonist, a CCR2 inhibitor, a CCR5 inhibitor, a dual CCR2/CCR5 inhibitor, a lysyl oxidase-like-2 inhibitor, an ASK1 inhibitor, an Acetyl-CoA Carboxylase (ACC) inhibitor, a p38 kinase inhibitor, Pirfenidone, Nintedanib, a GDF11 inhibitor, or a JAK inhibitor.
23. The pharmaceutical composition according to claim 12, wherein the additional therapeutic agent comprises an ASK1 inhibitor, an FXR agonist, or an ACC inhibitor.
24. A nucleic acid encoding an antibody of any one of claims 1-10.