(d) a VH sequence of SEQ ID NO: 89 and a VL sequence of SEQ ID NO: 96;
(e) a VH sequence of SEQ ID NO: 90 and a VL sequence of SEQ ID NO: 96;
(f) a VH sequence of SEQ ID NO: 91 and a VL sequence of SEQ ID NO: 96;
(g) a VH sequence of SEQ ID NO: 92 and a VL sequence of SEQ ID NO: 97;
(h) a VH sequence of SEQ ID NO: 93 and a VL sequence of SEQ ID NO: 97;
(i) a VH sequence of SEQ ID NO: 94 and a VL sequence of SEQ ID NO: 97; or
(j) a VH sequence of SEQ ID NO: 95 and a VL sequence of SEQ ID NO: 97. Anti-myostatin antibodies of the present disclosure may be for use in increasing mass of muscle tissue. Anti-myostatin antibodies of the present disclosure may be for use in increasing strength of muscle tissue. Anti-

myostatin antibodies of the present disclosure may be for use in reducing body fat accumulation.

[0054] In some examples, an anti-myostatin antibody provided herein has use in: (a) treating a muscle wasting disease; (b) increasing mass of muscle tissue; (c) increasing strength of muscle tissue; or (d) reducing body fat accumulation.

[0055] Anti-myostatin antibodies of the present disclosure may be used in the manufacture of a medicament. In some examples, the antibody is used in the manufacture of a medicament for: (a) treatment of a muscle wasting disease; (b) increasing mass of muscle tissue; (c) increasing strength of muscle tissue; or (d) reducing body fat accumulation. In some examples, the medicament is for treatment of a muscle wasting disease. In some examples, the medicament is for increasing mass of muscle tissue. In some examples, the medicament is for increasing strength of muscle tissue. In some examples, the medicament is for reducing body fat accumulation.

[0056] The disclosure also provides a method of treating an individual having a muscle wasting disease. In some examples, the method comprises administering to the individual an effective amount of an anti-myostatin antibody of the present disclosure. The disclosure also provides a method of increasing mass of muscle tissue in an individual. In some examples, the method comprises administering to the individual an effective amount of an anti-myostatin antibody of the present disclosure to increase mass of muscle tissue. The disclosure also provides a method of increasing strength of muscle tissue in an individual. In some examples, the method comprises administering to the individual an effective amount of an anti-myostatin antibody of the present disclosure to increase strength of muscle tissue. The disclosure also provides a method of reducing body fat accumulation in an individual. In some examples, the method comprises administering to the individual an effective amount of an anti-myostatin antibody of the present invention to reduce body fat accumulation.

Specifically provided are:

[1] an antibody that binds to latent myostatin for use in treating a muscle wasting disease, wherein the antibody inhibits activation of myostatin;

[2] an antibody that binds to latent myostatin for use in increasing mass of muscle tissue, wherein the antibody inhibits activation of myostatin;

[3] an antibody that binds to latent myostatin for use in increasing strength of muscle tissue, wherein the antibody inhibits activation of myostatin;

[4] an antibody that binds to latent myostatin for use in reducing body fat accumulation, wherein the antibody inhibits activation of myostatin;

[5] use of an antibody that binds to latent myostatin in the manufacture of a medicament for treatment of a muscle wasting disease, wherein the antibody inhibits activation of myostatin;

[CLAIMS]

[Claim 1]

Use of an antibody that binds to latent myostatin in the manufacture of a pharmaceutical formulation for treating a muscle wasting disease, wherein the antibody comprises:

(a) a VH sequence of SEQ ID NO: 86 and a VL sequence of SEQ ID NO: 96;

(b) a VH sequence of SEQ ID NO: 87 and a VL sequence of SEQ ID NO: 96;

(c) a VH sequence of SEQ ID NO: 88 and a VL sequence of SEQ ID NO: 96;

(d) a VH sequence of SEQ ID NO: 89 and a VL sequence of SEQ ID NO: 96;

(e) a VH sequence of SEQ ID NO: 90 and a VL sequence of SEQ ID NO: 96;

(f) a VH sequence of SEQ ID NO: 91 and a VL sequence of SEQ ID NO: 96;

(g) a VH sequence of SEQ ID NO: 92 and a VL sequence of SEQ ID NO: 97;

(h) a VH sequence of SEQ ID NO: 93 and a VL sequence of SEQ ID NO: 97;

(i) a VH sequence of SEQ ID NO: 94 and a VL sequence of SEQ ID NO: 97; or

(j) a VH sequence of SEQ ID NO: 95 and a VL sequence of SEQ ID NO: 97.

[Claim 2]

The use according to claim 1, wherein the antibody comprises a heavy chain constant region comprising the amino acid sequence of SEQ ID NO: 352, and a light chain constant region comprising the amino acid sequence of SEQ ID NO: 10.

[Claim 3]

The use according to claim 1 or 2, wherein the antibody is a full length IgG antibody.

ANTI-MYOSTATIN ANTIBODIES AND METHODS OF USE

Abstract

The disclosure provides anti-myostatin antibodies and methods of making and using the same. Nucleic acids encoding the anti-myostatin antibodies and host cells comprising the nucleic acids are also provided. The disclosure also provides polypeptides containing a variant Fc region and methods of making and using the same. Nucleic acids encoding the polypeptides and host cells comprising the nucleic acids are also provided.

[No suitable Fig]