i) the amino acid sequence of SEQ ID NOs: 15; or

ii) a biologically active sequence variant of the amino acid sequence of i) wherein the variant has at least 60% sequence identity to said SEQ ID NO: 15,

iii) a biologically active fragment of at least 15 contiguous amino acids of any one of i) through ii), said fragment having at least 60% sequence identity to SEQ ID NO: 15 in a range of overlap of at least 15 amino acids,

b) a nucleic acid sequence encoding a polypeptide as defined in a);

c) a vector comprising the nucleic acid molecule as defined in b),

d) an isolated host cell transformed or transduced with the nucleic acid of b) or the vector of c),

for the preparation of a medicament for reduction of appetite, and/or for promoting weight loss, and/or treating obesity, and/or increasing metabolism, and/or increasing thermogenesis, and/or converting white fat into brown fat.

~~60. A method for reducing appetite, and/or for promoting weight loss, and/or for treating obesity, and/or for increasing metabolism, and/or for increasing thermogenesis, and/or for converting white fat into brown fat, the method comprising administering to an individual in need thereof a therapeutically effective amount of an agent selected from the group consisting of:~~

~~a) an isolated polypeptide comprising:~~

~~i) the amino acid sequence of SEQ ID NOs: 15; or~~

~~ii) a biologically active sequence variant of the amino acid sequence of i) wherein the variant has at least 60% sequence identity to said SEQ ID NO: 15,~~

~~iii) a biologically active fragment of at least 15 contiguous amino acids of any one of i) through ii), said fragment having at least 60% sequence identity to SEQ ID NO: 15 in a range of overlap of at least 15 amino acids,~~

~~b) a nucleic acid sequence encoding a polypeptide as defined in a);~~

~~c) a vector comprising the nucleic acid molecule as defined in b),~~

~~d) an isolated host cell transformed or transduced with the nucleic acid of b) or the vector of c).~~

~~61.~~60. ~~A method for for treating obesity the method comprising administering to an individual in need thereof a therapeutically effective amount of an agent selected from the group consisting of~~Use of an agent selected from the group consisting of:

a) an isolated polypeptide comprising:

i) the amino acid sequence of SEQ ID NOs: 15; or

ii) a biologically active sequence variant of the amino acid sequence of i) wherein the variant has at least 60% sequence identity to said SEQ ID NO: 15,

iii) a biologically active fragment of at least 15 contiguous amino acids of any one of i) through ii), said fragment having at least 60% sequence identity to SEQ ID NO: 15 in a range of overlap of at least 15 amino acids,

b) a nucleic acid sequence encoding a polypeptide as defined in a);

c) a vector comprising the nucleic acid molecule as defined in b),

d) an isolated host cell transformed or transduced with the nucleic acid of b) or the vector of c),

in the manufacture of a medicament for treating obesity in an individual in need thereof.

62.61. A method for increasing metabolism, the method comprising administering to an individual in need thereof a therapeutically effective amount of Use of an agent selected from the group consisting of:

a) an isolated polypeptide comprising:

i) the amino acid sequence of SEQ ID NOs: 15; or

ii) a biologically active sequence variant of the amino acid sequence of i) wherein the variant has at least 60% sequence identity to said SEQ ID NO: 15,

iii) a biologically active fragment of at least 15 contiguous amino acids of any one of i) through ii), said fragment having at least 60% sequence identity to SEQ ID NO: 15 in a range of overlap of at least 15 amino acids,

b) a nucleic acid sequence encoding a polypeptide as defined in a);

c) a vector comprising the nucleic acid molecule as defined in b),

d) an isolated host cell transformed or transduced with the nucleic acid of b) or the vector of c),

in the manufacture of a medicament for increasing metabolism in an individual in need thereof.

63.62. A method for increasing thermogenesis in a mammal, the method comprising administering to the mammal a therapeutically effective amount of Use of an agent selected from the group consisting of:

a) an isolated polypeptide comprising:

i) the amino acid sequence of SEQ ID NOs: 15; or

ii) a biologically active sequence variant of the amino acid sequence of i) wherein the variant has at least 60% sequence identity to said SEQ ID NO: 15,

iii) a biologically active fragment of at least 15 contiguous amino acids of any one of i) through ii), said fragment having at least 60% sequence identity to SEQ ID NO: 15 in a range of overlap of at least 15 amino acids,

b) a nucleic acid sequence encoding a polypeptide as defined in a);

c) a vector comprising the nucleic acid molecule as defined in b),

d) an isolated host cell transformed or transduced with the nucleic acid of b) or the vector of c),

in the manufacture of a medicament for increasing thermogenesis in a mammal.

~~64. An in vivo method for converting white fat into brown fat, the method comprising administering to a mammal a therapeutically effective amount of an agent selected from the group consisting of:~~

~~a) an isolated polypeptide comprising:~~

~~i) the amino acid sequence of SEQ ID NOs: 15; or~~

~~ii) a biologically active sequence variant of the amino acid sequence of i) wherein the variant has at least 60% sequence identity to said SEQ ID NO: 15,~~

~~iii) a biologically active fragment of at least 15 contiguous amino acids of any one of i) through ii), said fragment having at least 60% sequence identity to SEQ ID NO: 15 in a range of overlap of at least 15 amino acids,~~

~~b) a nucleic acid sequence encoding a polypeptide as defined in a);~~

~~c) a vector comprising the nucleic acid molecule as defined in b),~~

~~d) an isolated host cell transformed or transduced with the nucleic acid of b) or the vector of c).~~

~~65.~~63. An in vitro method for converting white fat into brown fat, the method comprising contacting a cell with an effective amount of an agent selected from the group consisting of:

a) an isolated polypeptide comprising:

i) the amino acid sequence of SEQ ID NOs: 15; or

ii) a biologically active sequence variant of the amino acid sequence of i) wherein the variant has at least 60% sequence identity to said SEQ ID NO: 15,

iii) a biologically active fragment of at least 15 contiguous amino acids of any one of i) through ii), said fragment having at least 60% sequence identity to SEQ ID NO: 15 in a range of overlap of at least 15 amino acids,

b) a nucleic acid sequence encoding a polypeptide as defined in a);

c) a vector comprising the nucleic acid molecule as defined in b),

d) an isolated host cell transformed or transduced with the nucleic acid of b) or the vector of c).