CLAIMS

1. A polypeptide having the activity of exporting *O*-acetylhomoserine, wherein at least one amino acid selected from the group consisting of phenylalanine at position 30, leucine at position 95, and phenylalanine at position 165 in the amino acid sequence of SEQ ID NO: 1 is substituted with another amino acid.

2. The polypeptide according to claim 1, wherein phenylalanine at position 30 in the amino acid sequence of SEQ ID NO: 1 is substituted with any one selected from the group consisting of alanine, tryptophan, leucine, valine, glycine, serine, asparagine, aspartic acid, and histidine; leucine at position 95 in the amino acid sequence of SEQ ID NO: 1 is substituted with any one selected from the group consisting of valine, phenylalanine, alanine, glycine, threonine, asparagine, aspartic acid, and histidine; or phenylalanine at position 165 in the amino acid sequence of SEQ ID NO: 1 is substituted with any one selected from the group consisting of alanine, tryptophan, leucine, valine, glycine, serine, asparagine, aspartic acid, and histidine.

3. The polypeptide according to claim 1, wherein valine at position 1 in the amino acid sequence of SEQ ID NO: 1 is further substituted with methionine.

4. The polypeptide according to claim 1, wherein the polypeptide is selected from the group consisting of amino acid sequences of SEQ ID NOS: 133, 134, 137, 138, 141, and 142.

5. A polynucleotide encoding the polypeptide having the activity of exporting *O*-acetylhomoserine of claim 1.

6. The polynucleotide according to claim 5, wherein the polynucleotide is selected from the group consisting of nucleic acid sequences of SEQ ID NOS: 135, 136, 139, 140, 143, and 144.

7. A microorganism of the genus *Escherichia* producing *O*-acetylhomoserine, wherein a modified polypeptide of the amino acid sequence of SEQ ID NO: 1 is comprised or overexpressed,

wherein the modified polypeptide has substitutions at least one amino acid selected from the group consisting of phenylalanine at position 30, leucine at position 95, and phenylalanine at position 165 in the amino acid sequence of SEQ ID NO: 1.

8. The microorganism according to claim 7, wherein, with regard to the modified polypeptide, phenylalanine at position 30 in the amino acid sequence of SEQ ID NO: 1 is substituted with any one selected from the group consisting of alanine, tryptophan, leucine, valine, glycine, serine, asparagine, aspartic acid, and histidine; leucine at position 95 in the amino acid sequence of SEQ ID NO: 1 is

substituted with any one selected from the group consisting of valine, phenylalanine, alanine, glycine, threonine, asparagine, aspartic acid, and histidine; or phenylalanine at position 165 in the amino acid sequence of SEQ ID NO: 1 is substituted with any one selected from the group consisting of alanine, tryptophan, leucine, valine, glycine, serine, asparagine, aspartic acid, and histidine.

9. The microorganism according to claim 7, wherein, with regard to the modified polypeptide, valine at position 1 in the amino acid sequence of SEQ ID NO: 1 is further substituted with methionine.

10. The microorganism according to claim 7, wherein the microorganism of the genus *Escherichia* is *Escherichia coli*.

11. The microorganism according to claim 7, wherein, additionally, the activity of cystathionine synthase is inactivated.

12. The microorganism according to claim 7, wherein, additionally, the activity of homoserine kinase is inactivated.

13. The microorganism according to claim 7, wherein, additionally, the activity of homoserine acetyltransferase is enhanced compared to that of an unmodified microorganism.

14. The microorganism according to claim 7, wherein, additionally, the activities of aspartate semialdehyde dehydrogenase, pyridine nucleotide transhydrogenase, or a combination thereof is enhanced compared to that of an unmodified microorganism.

15. A method for producing *O*-acetylhomoserine, comprising:

culturing the microorganism of the genus *Escherichia* producing *O*-acetylhomoserine of any one of claims 7 to 14 in a medium; and

recovering *O*-acetylhomoserine from the cultured microorganism or the cultured medium.

16. A method for producing L-methionine, comprising:

culturing the microorganism of the genus *Escherichia* producing *O*-acetylhomoserine of any one of claims 7 to 14 in a medium; and

converting the O-acetylhomoserine to L-methionine by treating the cultured microorganism or the cultured medium or the O-acetylhomoserine recovered from the cultured microorganism or the cultured medium with methyl mercaptan and a methionine-converting enzyme.

17. The method according to claim 16, wherein the methionine-converting enzyme is *O*-acetylhomoserine sulfhydrylase.