Claims

[Claim 1]

A pharmaceutical composition for preventing and/or treating a cartilage disorder, comprising any one substance of (a) to (c):

(a) an HMGB1 fragment peptide comprising an amino acid sequence set forth in SEQ ID NO: 1;

(b) a peptide comprising an amino acid sequence set forth in SEQ ID NO: 1 with one or more amino acids substituted, deleted, inserted, or added; and

(c) a peptide comprising an amino acid sequence having a sequence identity of about 80% or more to the amino acid sequence set forth in SEQ ID NO: 1.

[Claim 2]

The pharmaceutical composition according to claim 1, wherein the cartilage disorder is traumatic cartilage defect, osteoarthritis, or osteochondritis dissecans.

[Claim 3]

The pharmaceutical composition according to claim 1 or 2 for use in preventing and/or treating a cartilage disorder.

~~[Claim 4]~~

~~The pharmaceutical composition for use according to claim 3, wherein the cartilage disorder is traumatic cartilage defect, osteoarthritis, or osteochondritis dissecans.~~

[Claim ~~5~~1]

Use of any one of substances (a) to (c) ~~the pharmaceutical composition according to claim 1 or 2~~ in the manufacture of a medicament for preventing and/or treating a cartilage disorder, wherein:

(a) a peptide consisting of an amino acid sequence set forth in SEQ ID NO: 1;

(b) a peptide consisting of an amino acid sequence set forth in SEQ ID NO: 1 with one to ten amino acids substituted, deleted, inserted, or added; and

(c) a peptide consisting of an amino acid sequence having a sequence identity of about 80% or more to the amino acid sequence set forth in SEQ ID NO: 1.

[Claim 2]

The use according to claim 1, wherein the cartilage disorder is traumatic cartilage defect, osteoarthritis,

osteochondritis dissecans, meniscal damage, traumatic arthritis, rheumatoid arthritis, or infectious arthritis.

[Claim ~~6~~3]

The use according to claim ~~5~~2, wherein the cartilage disorder is traumatic cartilage defect, osteoarthritis, or osteochondritis dissecans.

~~[Claim 7]~~

~~A pharmaceutical composition for regenerating hyaline cartilage in a patient with a cartilage disorder, comprising any one substance of (a) to (c):~~

~~(a) an HMGB1 fragment peptide comprising an amino acid sequence set forth in SEQ ID NO: 1;~~

~~(b) a peptide comprising an amino acid sequence set forth in SEQ ID NO: 1 with one or more amino acids substituted, deleted, inserted, or added; and~~

~~(c) a peptide comprising an amino acid sequence having a sequence identity of about 80% or more to the amino acid sequence set forth in SEQ ID NO: 1.~~

~~[Claim 8]~~

~~The pharmaceutical composition according to claim 7, wherein the cartilage disorder is traumatic cartilage defect, osteoarthritis, or osteochondritis dissecans.~~

~~[Claim 9]~~

~~The pharmaceutical composition according to claim 7 or 8 for use in regenerating hyaline cartilage in a patient with a cartilage disorder.~~

~~[Claim 10]~~

~~The pharmaceutical composition for use according to claim 9, wherein the cartilage disorder is traumatic cartilage defect, osteoarthritis, or osteochondritis dissecans.~~

[Claim ~~11~~4]

Use of any one of substances (a) to (c) ~~the pharmaceutical composition according to claim 7 or 8~~ in the manufacture of a medicament for regenerating hyaline cartilage in a patient with a cartilage disorder, wherein:

(a) a peptide consisting of an amino acid sequence set forth in SEQ ID NO: 1;

(b) a peptide consisting of an amino acid sequence set forth in SEQ ID NO: 1 with one to ten amino acids substituted, deleted, inserted, or added; and

(c) a peptide consisting of an amino acid sequence having a sequence identity of about 80% or more to the amino acid sequence set forth in SEQ ID NO: 1.

[Claim 5]

The use according to claim 4, wherein the cartilage disorder is traumatic cartilage defect, osteoarthritis, osteochondritis dissecans, meniscal damage, traumatic arthritis, rheumatoid arthritis, or infectious arthritis.

[Claim ~~12~~6]

The use according to claim ~~11~~5, wherein the cartilage disorder is traumatic cartilage defect, osteoarthritis, or osteochondritis dissecans.