Claims

[Claim 1]

Use of a sugar other than glucose as a precipitation suppressing agent and an antisense oligomer in the manufacture of a resulting pharmaceutical composition to be administered to a subject for suppressing precipitation in urine of the subject due substantially to the antisense oligomer in the subject, wherein the sugar other than glucose is used in an amount such that a concentration of the sugar other than glucose in the resulting pharmaceutical composition is 0.5 mg/mL to 3000 mg/mL.

[Claim 2]

The use according to claim 1, wherein the sugar other than glucose is used in an amount such that the concentration of the sugar other than glucose in the resulting pharmaceutical composition is 2.6 mg/mL to 1694.1 mg/mL.

[Claim 3]

The use according to claim 1 or 2, wherein a concentration of the antisense oligomer in the resulting pharmaceutical composition is 0.05 mg/mL to 2000 mg/mL.

[Claim 4]

Use of a sugar other than glucose as a precipitation suppressing agent and an antisense oligomer in the manufacture of a resulting pharmaceutical composition to

be administered to a subject for suppressing precipitation in urine of the subject due substantially to the antisense oligomer in the subject, wherein the sugar other than glucose is used in an amount such that a weight ratio of the sugar other than glucose is 0.1 to 100 per 1 of the antisense oligomer in the resulting pharmaceutical composition.

[Claim 5]

The use according to claim 4, wherein the sugar other than glucose is used in an amount such that the weight ratio of the sugar other than glucose is 1 to 53 per 1 of the antisense oligomer in the resulting pharmaceutical composition.

[Claim 6]

The use according to any one of claims 1 to 5, wherein the sugar other than glucose is a disaccharide.

[Claim 7]

The use according to any one of claims 1 to 6, wherein the sugar other than glucose is sucrose.

[Claim 8]

The use according to any one of claims 1 to 6, wherein the sugar other than glucose is trehalose.

[Claim 9]

The use according to any one of claims 1 to 8, wherein the antisense oligomer is a morpholino oligomer.

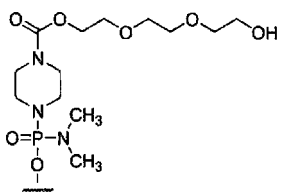
[Claim 10]

The use according to any one of claims 1 to 9, wherein the antisense oligomer is a phosphorodiamidate morpholino oligomer.

[Claim 11]

The use according to any one of claims 1 to 10, wherein the 5'-end of the antisense oligomer is any group represented by the following chemical formulae (1) and (2):

[Chem. 1]



(1)



(2)

[Claim 12]

The use according to any one of claims 1 to 11, wherein the antisense oligomer comprises four consecutive purine bases in its base sequence.

[Claim 13]

The use according to claim 12, wherein at least two of the four consecutive purine bases are guanine.

[Claim 14]

The use according to any one of claims 1 to 13, wherein the antisense oligomer comprises a base sequence selected from the group consisting of SEQ ID NOs: 1 to 12.

[Claim 15]

A pharmaceutical composition comprising an antisense oligomer, wherein the pharmaceutical composition comprises a precipitation suppressing agent at a concentration of 0.5 mg/mL to 3000 mg/mL, the precipitation suppressing agent comprising a sugar other than glucose.