[Document Name] Claims

[Claim 1]

A method for producing enteric neural precursors, comprising the steps of:

(A1) providing neural crest cells; and

(A2) culturing the neural crest cells in a medium comprising an ERBB3 agonist and/or an ERBB4 agonist, a TGFβ inhibitor and a GSK3β inhibitor, GDNF, and retinoic acid and/or a derivative thereof.

[Claim 2]

The production method according to claim 1, wherein the medium further comprises Matrigel.

[Claim 3]

The production method according to claim 1 or 2, wherein the ERBB3 agonist and/or the ERBB4 agonist is NRG1.

[Claim 4]

The production method according to claim 1, wherein the neural crest cells are vagal neural crest cells.

[Claim 5]

The production method according to claim 4, wherein

the vagal neural crest cells are SOX10-positive, HOXB5-positive, HOXB9-negative and PHOX2B-negative, and

the enteric neural precursors are SOX10-positive and PHOX2B-positive.

[Claim 6]

An expansion culture method for enteric neural precursors, comprising the steps of:

(C1) providing enteric neural precursors; and

(C2) culturing the enteric neural precursors in a medium comprising an ERBB3 agonist and/or an ERBB4 agonist, GDNF, and retinoic acid and/or a derivative thereof.

[Claim 7]

A method for producing an intestinal organoid, comprising the step of coculturing enteric neural precursors and hindgut cells, wherein the enteric neural precursors are

enteric neural precursors obtained by a production method according to any one of claims 1 to 5.

[Claim 8]

A method for producing an artificial intestinal tract, comprising the steps of:

coculturing enteric neural precursors and hindgut cells to obtain an intestinal organoid, wherein the enteric neural precursors are enteric neural precursors obtained by a production method according to any one of claims 1 to 5; and

transplanting the intestinal organoid into a living body to form an artificial intestinal tract.