nacalai tesque
The quality for certainty.

Serum Substitutes for Neural Stem Cell Culture

N-2 Supplement (100X)

N-2 Supplement (100X) is a serum substitute used for culturing neural cells. It enables the maintenance of undifferentiated neural stem cells, which would otherwise undergo differentiation when exposed to serum. In addition, it can be used as a supplement for a variety of neural cell cultures in combination with growth factors and other serum substitutes.

Features

01 **Enhances neural stem cell growth and expansion**

02 **Xeno-free**

Product Description

Ingredients

- Recombinant human insulin
- Human holo-transferrin (iron-saturated)
- Sodium selenite
- Putrescine
- Progesterone

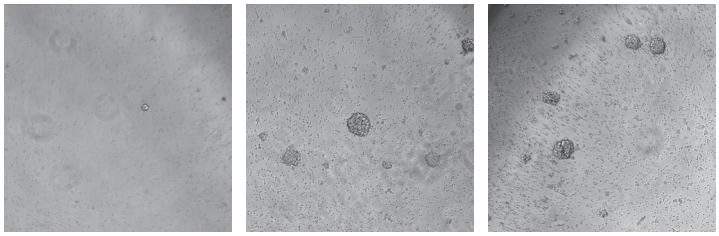
Culturing neural cells using the neurosphere method

A single-cell suspension was prepared from the brains of E14 mouse embryos and cultured using the neurosphere method in medium* supplemented with either this product or a competitor's product (Company A). Evaluation of cell morphology and proliferation rate showed that this product achieved results comparable to those of Company A's product.

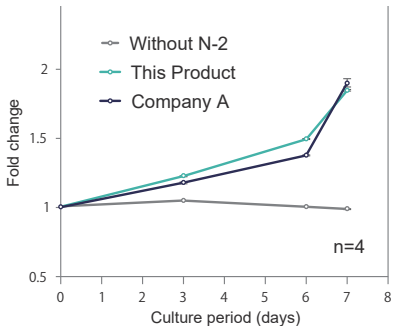
* Medium: DMEM/Ham's F-12 (#08460-95, 20 ng/mL bFGF, 20 ng/mL EGF

● Cell morphology (Day 6 of culture)

Without N-2 | This Product | Company A



● Cell proliferation assay (WST-8 method)



Product Description (cont.)

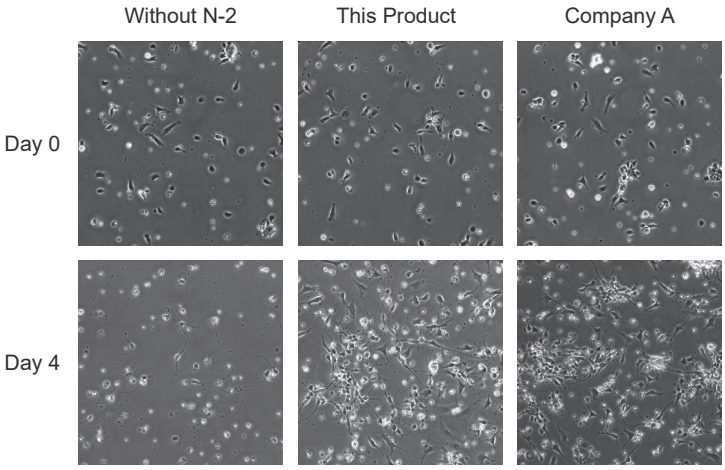
Culturing neural cells using the adherent culture method

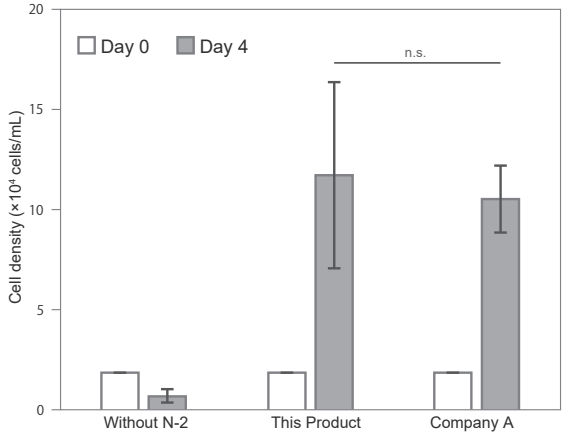
A single-cell suspension was prepared from the brains of E10 mouse embryos and cultured on, Poly-L-lysine-coated plates using medium* supplemented with either this product or a competitor's product (Company A). Results demonstrated that this product, like Company A's product, supports the proliferation of cells while maintaining them in an undifferentiated state.

* Medium: DMEM/Ham's F-12(#08460-95), 20 ng/mL bFGF, 20 ng/mL EGF

● Comparison of cell morphology and growth

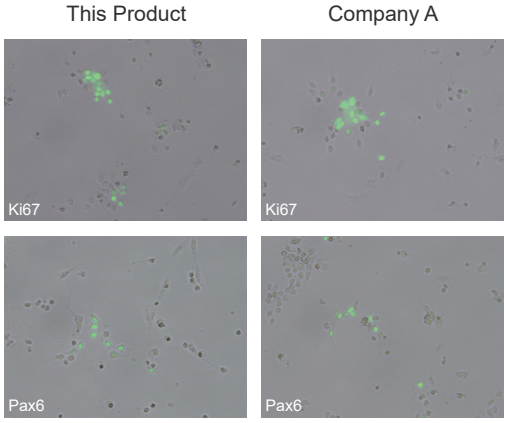
After 4 days of culture, evaluation of cell morphology and cell number showed that this product produced results comparable to those of Company A's product.

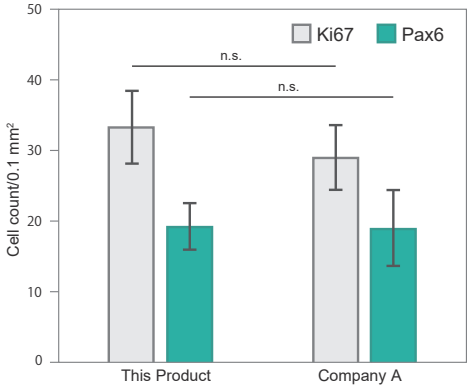




● Confirmation of the undifferentiated state

Immunostaining was performed on cells after 3 days of culture to examine the expression of Ki67 (a proliferation marker) and Pax6 (a neural stem/progenitor cell marker). No significant differences were observed in the number of marker-positive cells between cultures supplemented with this product and those with Company A's product, indicating that the cells maintained an undifferentiated state.





Ordering Information

Product Name	Grade	Storage	Product No.	PKG Size
N-2 Supplement (100X)	SP (For cell culture)	Freezer	22666-04	5 mL

For research use only, not intended for diagnostic or drug use.

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NACALAI TESQUE, INC.
Nijo Karasuma, Nakagyo-ku, Kyoto 604-0855 JAPAN
TEL : +81-(0)75-251-1730
Website : www.nacalai.com
E-mail : info.intl@nacalai.com