

Noggin-like Peptide (BMP4,7 Inhibitor) [Product ID: PG-004]

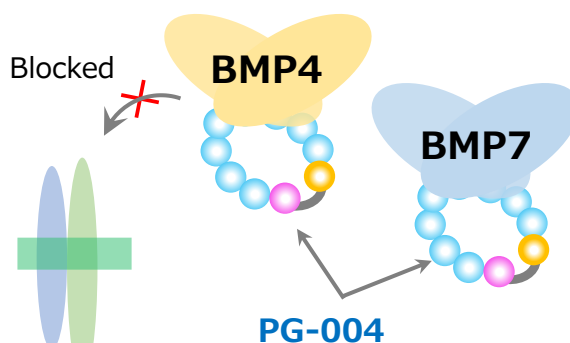
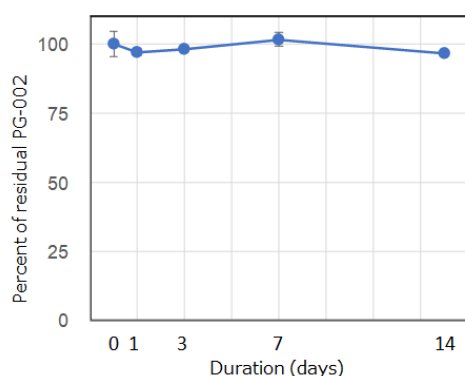
BMP7 Selective Inhibitor [Product ID: PG-005]

BMP4 Selective Inhibitor [Product ID: PG-006]

Stability in cell culture medium for a period of 14 days

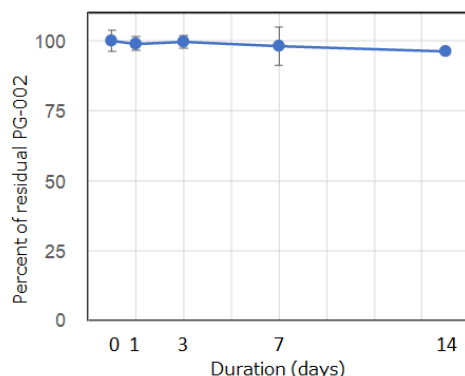
PeptiGrowth's research reagent products Noggin-like peptide (BMP4,7 inhibitor), BMP7 selective inhibitor, and BMP4 selective inhibitor are all inhibitory peptides of BMP4 and BMP7 present in cell culture supernatants. Particularly, PG-004 binds to a wide range of BMP molecules including BMP4 and BMP7 (see schematic representation below). Each product exhibits cyclic monomer structure, structurally stable and is expected to persist as undegraded in general liquid media [1]. In this experiment, to assess the stability of these inhibitory peptides under standard cell culture conditions, we measured the concentration change over time **in liquid media under the following normal culture conditions (37°C) and confirmed that the concentration was significantly maintained after two weeks (graph below).**

Changes in PG-004 concentration (initial value set as 100%)

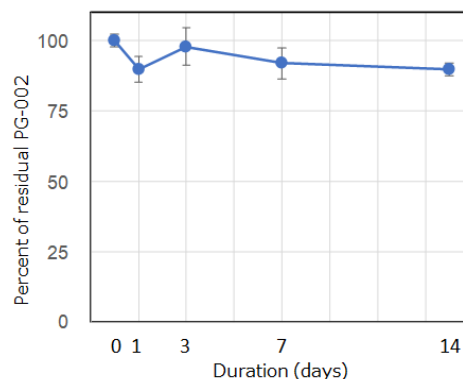


Binding of PG-004 (Noggin-like peptide) to BMP4 and BMP7 and its competitive inhibition mechanism of each BMP's receptor binding

Changes in PG-005 concentration (initial value set as 100%)



Changes in PG-006 concentration (initial value set as 100%)



Application Note



- Method: Either of PG-004, PG-005 or PG-006 (final concentration: 100 nM) was added into the liquid medium (commercially available **DMEM/F-12**) and **maintained at 37° C for 14 days**. Relative concentrations of them were measured by LC/MS system at several points (at 0, 1, 3, 7, and 14 days).
- Result: Concentrations were shown as **maintained at 80% or higher even after 14 days under normal cell culture conditions** (N=3, mean \pm SD, in the upper graph).
- References:
 - 1) Nature Portfolio 2022. [A growing market for synthetically produced peptides \(nature.com\)](https://www.nature.com)
- Precautions regarding the product:
 - Please read the Safety Data Sheet (SDS) carefully prior to use the product.
 - To use this product immediately after dissolving is recommended.
 - This product is a reagent for research use only. Not to use for any purpose other than research or investigational use.
 - Specifications, contents, appearances, etc. of this product may be changed without notice.
 - Contact us or our sales agents, if with any large amounts or other special specification.

《Contact regarding PeptiGrowth's products and application notes》

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