

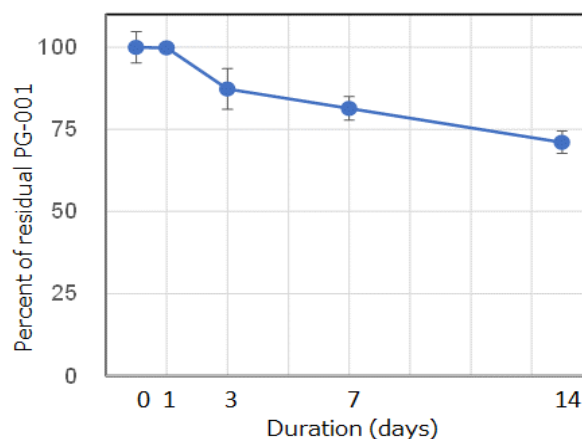
HGF Alternative Peptide (Product ID: PG-001) 14days Stability in Cell Culture Medium at 37°C

Hepatocyte Growth Factor (HGF) is a growth factor to promote hepatocyte proliferation and exerts biological activity by binding to c-Met receptor. PeptiGrowth's HGF alternative peptide "PG-001" induces dimerization of c-Met similarly to HGF and exhibits an activity equivalent to that of HGF.

HGF is widely used to induce differentiation of several stem cells. Some reports have already described, however, when commercially available recombinant human HGF is added into the liquid cell culture medium, it degrades to 40% of its initial concentration within a few hours [1]. Therefore, for a long-time culture, the culture should be replaced with fresh medium frequently depending on the used cells type and experimental conditions.

All the growth factor alternative peptides from PeptiGrowth have unique cyclic structure understood to be structurally stable and are expected to be stable in the cell culture media [2]. At this testing, time-dependent changes of HGF alternative peptide "PG-001" concentrations in a liquid medium under standard cell culture conditions (at 37°C) were determined, demonstrating that the PG-001 concentration was apparently maintained as over 70% even after 2 weeks (see below).

Changes in PG-001 concentration (initial value set as 100%)



- **Method:** PG-001 (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 PG-001 were measured by LC/MS system at several points (at 0, 1, 3, 7, and 14 days).
- **Result:** Concentrations were shown as maintained at 70% or higher even after 14 days under normal cell culture conditions (N=3, mean ± SD, in the upper graph).

Application Note

- References:
 - 1) Meneghello G, *et al.* Biotechnol Lett. 2015; 37: 725-731.
 - 2) 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.

Product lineup

Product code	Factor Name
PG-001	HGF alternative peptide
PG-002	TGFβ1 inhibitor
PG-003	BDNF alternative peptide
PG-004	Noggin -like peptide
PG-005	BMP7 selective inhibitor
PG-006	BMP4 selective inhibitor
PG-007	VEGF alternative peptide
PG-008	Wnt3a alternative peptide
PG-009	Synthetic EGF (human)
PG-010	TPO alternative peptide

《Contact regarding PeptiGrowth's products and application notes》

Official Distributor for North America

Iwai North America Inc.



Tel: 650-486-1541
 orders@iwai-chem.com
 www.iwaichem.com

PeptiGrowth Inc. Tokyo, JAPAN, TEL : +81-(0)70-4503-1497, E-mail : contact@peptigrowth.com