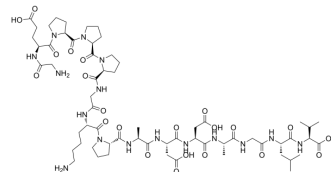


BPC 157

Cat. No.: HY-105174
CAS No.: 137525-51-0
Molecular Formula: C₆₂H₉₈N₁₆O₂₂
Molecular Weight: 1419.54
Sequence: Gly-Glu-Pro-Pro-Pro-Gly-Lys-Pro-Ala-Asp-Asp-Ala-Gly-Leu-Val
Sequence Shortening: GEPPPGKPADDAGLV
Target: JAK; FAK
Pathway: Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt
Storage: Sealed storage, away from moisture



Storage: Sealed storage, away from moisture
 Powder -80°C 2 years
 -20°C 1 year
 * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (70.45 mM)
 DMSO : 50 mg/mL (35.22 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|-----------|-----------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 0.7045 mL | 3.5223 mL | 7.0445 mL |
| | 5 mM | 0.1409 mL | 0.7045 mL | 1.4089 mL |
| | 10 mM | 0.0704 mL | 0.3522 mL | 0.7045 mL |

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (1.76 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 2.5 mg/mL (1.76 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (1.76 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BPC 157 is the 15-amino acid fragment of gastric peptide BPC. BPC 157 exhibits wound healing promoting and neuroprotective activity. BPC 157 maintains the integrity of the gastrointestinal mucosa without significant toxicity. BPC 157 acetate counteracts NSAIDs/insulin overdose/copper-induced toxicity. BPC 157 ameliorates specific

(over)stimulated/damaged neurotransmitter systems-induced behavioral disorders through serotonergic and dopaminergic systems^{[1][2][3]}.

In Vivo

BPC 157 successfully heals the intestinal anastomosis, gastrocutaneous, duodenocutaneous and colocolic fistulas in rats, as well as interacting with the NO-system^[1].

BPC 157 (10 µg/kg, 10 ng/kg) is applied either intraperitoneally once time daily (first application immediately after surgery, last at 24 hours before sacrifice) or per-orally in drinking water (0.16 µg/ml/12 ml/day till the sacrifice). A multiple sclerosis suited toxic rat model, cuprizone (compared with standard, a several times higher regimen, 2.5% of diet regimen + 1 g/kg intragastrically/day) was combined with BPC 157 (in drinking water 0.16 µg or 0.16 ng/ml/12 ml/day/rat + 10 µg or 10 ng/kg intragastrically/day) till the sacrifice at day 4. In general, the controls could not heal cysteamine colitis and colon-colon anastomosis. BPC 157 induced an efficient healing of both at the same time^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Desgagné M, et al., Development of Macrocyclic Neurotensin Receptor Type 2 (NTS2) Opioid-Free Analgesics. *Angew Chem Int Ed Engl.* 2024 Nov 18;63(47):e202405941.
- [2]. Sikiric P, et al. Stable gastric pentadecapeptide BPC 157: novel therapy in gastrointestinal tract. *Curr Pharm Des.* 2011;17(16):1612-1632.
- [3]. Klicek R, et al. Stable gastric pentadecapeptide BPC 157 heals cysteamine-colitis and colon-colon-anastomosis and counteracts cuprizone brain injuries and motor disability. *J Physiol Pharmacol.* 2013;64(5):597-612.

Caution: Product has not been fully validated for medical applications. For research use only.

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