

Product Data Sheet

Product Name: Bombesin

Cat. No.: GC14014

Chemical Properties

Cas. No. 31362-50-2

Chemical Name (S,Z)-N'-1-((5S,6Z,8S,9Z,11S,12Z,15Z,17S,18Z,20S,21Z,23S,24Z,26S,27Z,29S,30Z,33Z,35S,36Z,38S)-11-((1H-imidazol-5-yl)methyl)-23-((1H-indol-3-yl)methyl)-43-amino-7,10,13,16,19,22,25,28,31,34,37-undecahydroxy-5-(hydroxy(imino)methyl)-29-(2-hydroxy-2-iminoethyl

SMILES CC(C[C@@])(/N=C(O)/[C@])(/N=C(O)/[C@])(/N=C(O)/[C@]1([H])CCC(O)=N1)([H])CCC(O)=N)([H])CCCNC(N)=N)([H])/C(O)=N/C/C(O)=N/[C@@](/C(O)=N/[C@@](/C(O)=N/[C@@](/C(O)=N/[C@@](/C(O)=N/[C@@](/C(O)=N/[C@@](/C(O)=N/[C@@](/C(O)=N/[C@@](C(O)=N)([H])CCSC)([H])CC(C

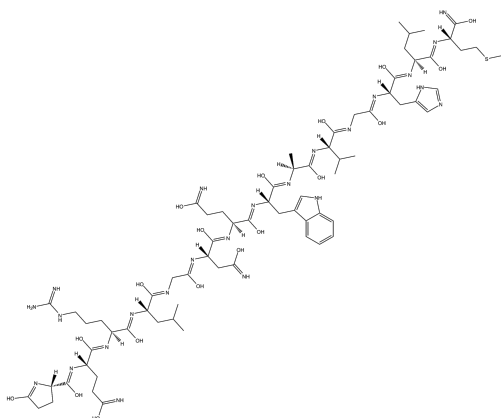
Formula $C_{71}H_{110}N_{24}O_{18}S$ M.Wt 1619.85

Solubility Soluble to 1 mg/ml in sterile water Storage Desiccate at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Bombesin is a 14-amino acid peptide that belongs to the Bombesin-related peptide family and plays

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

an important role in gastrin release and G protein receptor activation^[1, 2]. Bombesin, with a carboxyl terminus ending in Gly-His-Leu-Met-NH₂, was originally isolated from the skin of the European bell toad (*Bombina bombina*). Its homologous peptides (such as gastrin-releasing peptide (GRP) and neuromedin B (NMB)) were later found in mammals^[3]. Bombesin is a multifunctional neuropeptide that can stimulate gastric and pancreatic secretion, gastrointestinal hormone release, gallbladder contraction, and bronchial contraction^[4]. Bombesin is present in amphibian gastric endocrine cells, avian glandular stomach endocrine cells, and avian brain. In mammals, Bombesin is mainly present in nerve cells and fibers^[5]. Bombesin can stimulate nuclear factor κ B activation and the expression of proangiogenic factors in prostate cancer cells^[6].

References:

- [1] Vigna S R, Thorndyke M C. Bombesin[M]/The comparative physiology of regulatory peptides. Dordrecht: Springer Netherlands, 1989: 34-60.
- [2] LaPelusa A, Jan A. Biochemistry, bombesin[J]. 2019.
- [3] Tian Z. QUB-1073: A Bioactive Peptide from the Skin Secretion of *Phyllomedusa rohdei*[D]. Queen's University Belfast. Faculty of Medicine, Health and Life Sciences, December, 2018.
- [4] Cho W K. Role of the neuropeptide, bombesin, in bile secretion[J]. The Yale Journal of Biology and Medicine, 1997, 70(4): 409.
- [5] Chejfec G, Lee I, Warren W H, et al. Bombesin in human neuroendocrine (NE) neoplasms[J]. Peptides, 1985, 6: 107-112.
- [6] Levine L, Lucci III J A, Pazdrak B, et al. Bombesin stimulates nuclear factor κ B activation and expression of proangiogenic factors in prostate cancer cells[J]. Cancer research, 2003, 63(13): 3495-3502.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA