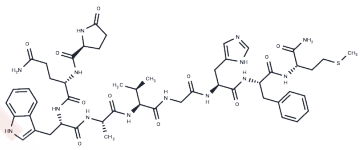
Data Sheet (Cat.No.T20604)

TargetMol

Litorin

Chemical Properties



CAS No. : 55749-97-8

Formula: C51H68N14O11S

Molecular Weight: 1085.24

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Litorin is a bombesin derivative derived from amphibians and acts as a bombesin receptor agonist. It induces smooth muscle contraction, stimulates the secretion of gastrin, gastric acid, and pancreatic juice, and inhibits nutrient uptake in in vivo experiments.
Targets(IC50)	Bombesin Receptor
In vitro	Methods: The inhibitory effect of [D-Phe^{1}, Leu^{8,9}] litorin on receptor binding in mouse Swiss 3T3 cells was determined. Results: [D-Phe^{1}, Leu^{8,9}] litorin inhibited the binding of ^{125}I-[Tyr^{4}] BN to mouse Swiss 3T3 cells, with a Ki value of 5.1 nM [2]. Methods: The effect of litorin on ^{3}H-thymidine incorporation in mouse Swiss 3T3 cells was examined. Results: Litorin stimulated ^{3}H-thymidine incorporation in mouse Swiss 3T3 cells, with an EC_{50} value of 2.3 nM [2].
In vivo	Methods: The application of ^{99}Tc-litorin for tumor imaging was developed and evaluated. Results: ^{99}Tc-litorin can be used for noninvasive imaging of tumors with high expression of gastrin-releasing peptide receptor (GRP-R) [1]. Methods: The regulatory effects of litorin on physiological functions related to the gastrointestinal tract and smooth muscle were investigated in vivo. Results: Litorin stimulated smooth muscle contraction, promoted the secretion of gastrin, gastric acid and pancreatic juice, and inhibited the absorption of nutrients in vivo [2].

Solubility Information

Solubility	DMSO: 80 mg/mL (73.72 mM),Sonication is recommended. H2O: 1 mg/mL (0.92 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9215 mL	4.6073 mL	9.2146 mL
5 mM	0.1843 mL	0.9215 mL	1.8429 mL
10 mM	0.0921 mL	0.4607 mL	0.9215 mL
50 mM	0.0184 mL	0.0921 mL	0.1843 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kam Leung. 99mTc-pGlu-Gln-Trp-Ala-Val-Gly-His-Phe-Met-NH2. Molecular Imaging and Contrast Agent Database (MICAD). 2007 Oct 1.

J M Siegfried, et al. Effects of bombesin and gastrin-releasing peptide on human bronchial epithelial cells from a series of donors: individual variation and modulation
by bombesin analogs. Anat Rec. 1993 May;236(1):241-7.

Barra D, Falconieri Erspamer G, Simmaco M, Bossa F, Melchiorri P, Erspamer V. Rohdei-litorin: a new peptide from the skin of Phyllomedusa rohdei. FEBS Lett. 1985 Mar 11;182(1):53-6. PubMed PMID: 3838283.

Durkan K, Lambrecht FY, Unak P. Radiolabeling of bombesin-like peptide with 99mTc: 99mTc-litorin and biodistribution in rats. Bioconjug Chem. 2007 Sep-Oct;18(5):1516-20. Epub 2007 Aug 31. PubMed PMID: 17760415.