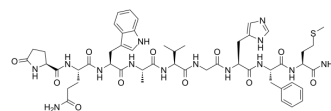


Litorin

Cat. No.:	HY-103281
CAS No.:	55749-97-8
Molecular Formula:	C ₅₁ H ₆₈ N ₁₄ O ₁₁ S
Molecular Weight:	1085.24
Sequence Shortening:	{Pyr}QWAVGHFM
Target:	Bombesin Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (92.15 mM; Need ultrasonic)																	
	H ₂ O : 2 mg/mL (1.84 mM; ultrasonic and warming and adjust pH to 3 with HCl and heat to 60°C)																	
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent Concentration</th> <th rowspan="2">Mass</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>0.9215 mL</td> <td>4.6073 mL</td> <td>9.2146 mL</td> </tr> <tr> <td>5 mM</td> <td>0.1843 mL</td> <td>0.9215 mL</td> <td>1.8429 mL</td> </tr> <tr> <td>10 mM</td> <td>0.0921 mL</td> <td>0.4607 mL</td> <td>0.9215 mL</td> </tr> </tbody> </table>	Solvent Concentration	Mass	1 mg	5 mg	10 mg	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
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Please refer to the solubility information to select the appropriate solvent.																		
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (2.30 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (2.30 mM); Clear solution 																	

BIOLOGICAL ACTIVITY

Description	Litorin, an amphibian bombesin peptide derivative, is an bombesin receptor agonist. Litorin stimulates the contraction of smooth muscle, stimulates gastrin, gastric acid, and pancreatic secretion, and suppresses the nutrient in vivo ^{[1][2]} .
In Vitro	<p>^{99m}Tc-Litorin is developed for non-invasive imaging of tumors with overexpressed gastrin-releasing peptide receptors (GRP-R)^[1].</p> <p>[D-Phe¹,Leu^{8,9}]Litorin inhibits binding of ¹²⁵I-[Tyr⁴] BN to murine Swiss 3T3 cells with a K_i of 5.1 nM^[2].</p> <p>Litorin stimulates ³H-Thymidine incorporation in murine Swiss 3T3 cells with an EC₅₀ of 2.3 nM^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

In Vivo

Litorin stimulates the contraction of smooth muscle, stimulates gastrin, gastric acid, and pancreatic secretion, and suppresses the nutriment in in vivo experiments^[2].

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REFERENCES

[1]. Kam Leung. ^{99m}Tc-pGlu-Gln-Trp-Ala-Val-Gly-His-Phe-Met-NH₂. Molecular Imaging and Contrast Agent Database (MICAD). 2007 Oct 1.

[2]. 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.

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

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