

## Bombesin

<b>Cat. No.:</b>	HY-P0195	
<b>CAS No.:</b>	31362-50-2	
<b>Molecular Formula:</b>	C <sub>71</sub> H <sub>110</sub> N <sub>24</sub> O <sub>18</sub> S	
<b>Molecular Weight:</b>	1619.85	{Glp}-QRLGNQWAVGHLM-NH <sub>2</sub>
<b>Sequence:</b>	{Glp}-Gln-Arg-Leu-Gly-Asn-Gln-Trp-Ala-Val-Gly-His-Leu-Met-NH <sub>2</sub>	
<b>Sequence Shortening:</b>	{Glp}-QRLGNQWAVGHLM-NH <sub>2</sub>	
<b>Target:</b>	Bombesin Receptor	
<b>Pathway:</b>	GPCR/G Protein	
<b>Storage:</b>	Sealed storage, away from moisture and light	
	Powder	-80°C 2 years -20°C 1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)	

### SOLVENT & SOLUBILITY

<b>In Vitro</b>	H <sub>2</sub> O : 1.43 mg/mL (0.88 mM; Need ultrasonic)
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### BIOLOGICAL ACTIVITY

**Description** Bombesin, a tetradecapeptide, plays an important role in the release of gastrin and the activation of G-protein receptors<sup>[1]</sup>.

**In Vitro** Bombesin is a tetradecapeptide with a COOH terminus ending in Gly-His-Leu-Met-NH<sub>2</sub> and subsequently is shown to closely resemble two mammalian bombesin-related peptides, gastrin-releasing peptide (GRP) and neuromedin B (NMB)<sup>[1]</sup>. Bombesin is found to have stimulatory effects upon gastric and pancreatic secretions, release of gastrointestinal hormones, gallbladder contraction and bronchoconstriction. It is present in amphibian gastric endocrine cells, avian proventriculus endocrine cells and avian brain. In mammals it is present mainly in nerve cells and fibers. The only mammalian endocrine cell shown to date to have bombesin is the P-cell in fetal lung. Bombesin is also found in mammalian brain, with its highest concentration in the hypothalamus<sup>[2]</sup>. Bombesin is shown to be a potent mitogen for Swiss 3T3 cells. In the presence of a low concentration (3.5%) of serum, bombesin stimulates 3T3 cell proliferation. In serum-free medium, bombesin induces DNA synthesis in the absence of any other added growth factor (IC<sub>50</sub>=1 nM)<sup>[3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Brain Res. 2022 May 23;1789:147950.

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## REFERENCES

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- [1]. Gonzalez N, et al. Bombesin-related peptides and their receptors: recent advances in their role in physiology and disease states. *Curr Opin Endocrinol Diabetes Obes.* 2008 Feb;15(1):58-64.
- [2]. Chejfec G, et al. Bombesin in human neuroendocrine (NE) neoplasms. *Peptides.* 1985;6 Suppl 3:107-12.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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