

## Motilin, canine

<b>Cat. No.:</b>	HY-P1541
<b>CAS No.:</b>	85490-53-5
<b>Molecular Formula:</b>	C <sub>120</sub> H <sub>194</sub> N <sub>36</sub> O <sub>34</sub>
<b>Molecular Weight:</b>	2685.05
<b>Sequence:</b>	Phe-Val-Pro-Ile-Phe-Thr-His-Ser-Glu-Leu-Gln-Lys-Ile-Arg-Glu-Lys-Glu-Arg-Asn-Lys-Gly-Gln <span style="float: right;">FVPIFTHSELQKIREKERNKGQ</span>
<b>Sequence Shortening:</b>	FVPIFTHSELQKIREKERNKGQ
<b>Target:</b>	Motilin Receptor
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	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

H<sub>2</sub>O : 100 mg/mL (37.24 mM; Need ultrasonic)  
 DMSO : 20 mg/mL (7.45 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	0.3724 mL	1.8622 mL	3.7243 mL
	5 mM	0.0745 mL	0.3724 mL	0.7449 mL
	10 mM	0.0372 mL	0.1862 mL	0.3724 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Motilin, canine is a 22-amino acid peptide. Motilin is a potent agonist for gastrointestinal smooth muscle contraction.

#### In Vivo

Motilin is a potent agonist for gastrointestinal smooth muscle contraction and has been proposed to regulate the onset of phase III of the migrating motor complex (MMC) in dogs and humans. In the dog, but not in the human, Motilin also contracts the gallbladder and sphincter of Oddi and induces pancreatic secretion. Motilin activates L-type Ca<sup>2+</sup> channel (I<sub>CaL</sub>) in canine jejunal circular smooth muscle cells through a G protein-coupled mechanism. At 1 μM, Motilin increases I<sub>CaL</sub> in canine jejunal circular smooth muscle cells by 43±20<sup>[1]</sup>.

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

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## REFERENCES

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[1]. Farrugia G, et al. Motilin and OHM-11526 activate a calcium current in human and canine jejunal circular smooth muscle. Am J Physiol. 1997 Aug;273(2 Pt 1):G404-12.

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

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