



LKT Laboratories, Inc.

## Motilin, porcine

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### Product Information

Product ID M5776

CAS No. 52906-92-0

**Chemical Name**

Synonym Motilin, pig

Formula  $C_{120}H_{188}N_{34}O_{35}S$

Formula Wt. 2699.1

Melting Point

Purity  $\geq 98\%$

Solubility Soluble in water (1 mg/mL).

Store Temp  $-20^{\circ}C$

Ship Temp Ambient

**Description** Motilin is an endogenous ghrelin-related peptide hormone that modulates gastrointestinal motility and is released during fasting. Motilin binds the motilin receptor, activating cholinergic signaling that induces contractions in intestinal muscle. In preadipocytes, motilin increases lipogenesis and expression of PPAR $\gamma$  and Cav3, stimulating mitochondrial activity and proliferation; in mature adipocytes, this peptide increases expression of PPAR $\gamma$ , CEBP- $\beta$ , and DGAT1 and increases uptake of fatty acids and glucose. Additionally, motilin exhibits anxiolytic activity in vivo, potentially through facilitation of GABAergic neurotransmission in the amygdala.

Phe-Val-Pro-Ile-Phe-Thr-Tyr-  
Gly-Glu-Leu-Gln-Arg-Met-  
Gln-Glu-Lys-Glu-Arg-Asn-  
Lys-Gly-Gln

### Pricing and Availability

*Bulk quantities available upon request*

Product ID	Size	List Price
M5776	0.5 mg	\$180.00
M5776	1 mg	\$450.00
M5776	2.5 mg	\$750.00

**References** Sanger GJ, Wang Y, Hobson A, et al. Motilin: towards a new understanding of the gastrointestinal neuropharmacology and therapeutic use of motilin receptor agonists. *Br J Pharmacol*. 2013 Dec;170(7):1323-32. PMID: 23189978.

Feng B, Liu JC, Zhang J, et al. Anxiolytic actions of motilin in the basolateral amygdala. *Mol Neurobiol*. 2013 Jun;47(3):892-902. PMID: 23307330.

Mieguni P, Cianflone K, Richard D, et al. Motilin stimulates preadipocyte proliferation and differentiation and adipocyte lipid storage. *Am J Physiol Endocrinol Metab*. 2011 Nov;301(5):E758-66. PMID: 21771971.

Piche T, Galmiche JP. Pharmacological targets in gastro-oesophageal reflux disease. *Basic Clin Pharmacol Toxicol*. 2005 Dec;97(6):333-41. PMID: 16364047.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.