



LKT Laboratories, Inc.

Peptide Histidine Isoleucine, pig

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Product Information

Product ID P2832

CAS No. 80458-29-3

Chemical Name

Synonym PHI

Formula $C_{136}H_{216}N_{36}O_{40}$

Formula Wt. 2995.39

Melting Point

Purity $\geq 97\%$

Solubility Soluble in water, acid.

His-Ala-Asp-Gly-Val-Phe-Thr-Ser-Asp-Phe-Ser-Arg-Leu-Leu-Gly-Gln-Leu-Ser-Ala-Lys-Lys-Tyr-Leu-Glu-Ser-Leu-Ile-NH₂

Product ID	Size
P2832	1 mg

Store Temp -20° C

Ship Temp Ambient

Description Peptide histidine isoleucine (PHI) is an endogenous brain-gut peptide that activates VPAC2 receptors. PHI exhibits anorexigenic activity in vivo, decreasing feeding behavior in an oxytocin-mediated manner. PHI also decreases caspase 3 activity and increases glutamate transporter (GLT-1a) activity in vitro. This peptide inhibits proliferation of neuroblastoma cells in a MAPK-mediated manner and appears to play a role in circadian rhythm management.

References Goursaud S, Focant MC, Berger JV, et al. The VPAC2 agonist peptide histidine isoleucine (PHI) up-regulates glutamate transport in the corpus callosum of a rat model of amyotrophic lateral sclerosis (hSOD1G93A) by inhibiting caspase-3 mediated inactivation of GLT-1a. *FASEB J.* 2011 Oct;25(10):3674-86. PMID: 21730107.

Colwell CS, Michel S, Itri J, et al. Disrupted circadian rhythms in VIP- and PHI-deficient mice. *Am J Physiol Regul Integr Comp Physiol.* 2003 Nov;285(5):R939-49. PMID: 12855416.

Olszewski PK, Wirth MM, Shaw TJ, et al. Peptides that regulate food intake: effect of peptide histidine isoleucine on consummatory behavior in rats. *Am J Physiol Regul Integr Comp Physiol.* 2003 Jun;284(6):R1445-53. PMID: 12595279.

Lelièvre V, Pineau N, Du J, et al. Differential effects of peptide histidine isoleucine (PHI) and related peptides on stimulation and suppression of neuroblastoma cell proliferation. A novel VIP-independent action of PHI via MAP kinase. *J Biol Chem.* 1998 Jul 31;273(31):19685-90. PMID: 9677397.

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