

Recombinant Human PENK, His-tagged

Cat. No. PENK-177H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human Proenkephalin-A/PENK is produced by our mammalian expression system in human cells. The target protein is expressed with sequence (Glu25-Phe267) of Human PENK fused with a polyhistidine tag at the C-terminus.
Species	Human
Source	HEK293
ProteinLength	25-267 a.a.
Description	Proenkephalin-A is a secreted protein that belongs to the opioid neuropeptide precursor family. Proenkephalin-A is an endogenous opioid polypeptide hormone which, via proteolytic cleavage, produces the enkephalin peptides [Met]enkephalin, and to a lesser extent, [Leu]enkephalin. Met- and Leu-enkephalins compete with and mimic the effects of opiate drugs. They play a role in a number of physiologic functions, including pain perception and responses to stress. Proenkephalin-A (114-133) and Proenkephalin-A (237-258) increase glutamate release in the striatum. Proenkephalin-A (114-133) decreases GABA concentration in the striatum.
AA Sequence	ECSQDCATCSYRLVRPADINFLACVMECEGKLP SLKIWETCKELLQLSKPELPQDGT STLRENSK PEESHLLAKRYGGFMKRYGGFMKKMDELYPMEPEEEANGSEILAKRY GGFMKKDAEEDDSLANS DLLKELLETGDNRRERSHHQDGS DNEEEVSKRYGGFM RGLKRSPQLEDEAKELQKRYGGFMRRVGR PEWWMDYQKRYGGFLKRFAEALPS DEEGESYSKEVPEMEKRYGGFMRFVDHHHHHH

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Endotoxin Less than 0.1 ng/μg (1 IEU/μg).

Purity Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.

GENE INFORMATION

Gene Name [PENK proenkephalin \[Homo sapiens \]](#)

Official Symbol PENK

Synonyms PENK; proenkephalin; proenkephalin-A; preproenkephalin; enkephalin A;

Gene ID [5179](#)

mRNA Refseq [NM_001135690](#)

Protein Refseq [NP_001129162](#)

MIM [131330](#)

UniProt ID [P01210](#)

Chromosome Location 8q23-q24

Pathway Class A/1 (Rhodopsin-like receptors), organism-specific biosystem; G alpha (i) signalling events, organism-specific biosystem; GPCR downstream signaling, organism-specific biosystem; GPCR ligand binding, organism-specific biosystem; Peptide ligand-binding receptors, organism-specific biosystem; Signal Transduction, organism-specific biosystem; Signaling by GPCR, organism-specific biosystem;

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Function

neuropeptide hormone activity; opioid peptide activity;

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