

Recombinant Human Pro-opiomelanocortin, His-tagged

Cat. No. POMC-3548H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human POMC protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	Pro-opiomelanocortin preproprotein, also known as POMC, a polypeptide hormone precursor that undergoes extensive, tissue-specific, post-translational processing via cleavage by subtilisin-like enzymes known as prohormone convertases. It regulates the corticosteroid production in the adrenal cortex. Also, POMC is cleaved into ten hormone chains named NPP, μ -MSH, ACTH, μ -MSH, CLIP, Lipotropin μ , Lipotropin μ , μ -MSH, μ endorphin and Met-enkephalin. Defects in the gene that encodes POMC are the cause of POMC deficiency, which is characterized by red hair and adrenal insufficiency.
Purity	> 85% by SDS - PAGE
Formulation	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 50% glycerol, 0.2M NaCl.
Molecular Weight	28.9 kDa (262aa), confirmed by MALDI-TOF(molecular weight on SDS-PAGE will appear higher)
Concentration	0.25mg/ml (determined by Bradford assay)

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Sequences of amino acids

MGSSHHHHHH SSGLVPRGSH MWCLESSQCQ DLTTESNLLE CIRACKPDLS
AETPMFPGNG DEQPLTENPR KYVMGHFRWD RFGRNRSSSSGSSGAGQKRE
DVSAGEDCGP LPEGGPEPRS DGAKPGPREG KRSYSMEHFR WGKPVGKKRR
PVKVYPNGAE DESAEAFPLE FKRELTGQRL REGDGPDPGA DDGAGAQADL
EHSLLVAAEK KDEGPYRMEH FRWGSPPKDK RYGGFMTSEK SQTPLVTLFK
NAIKNAYKK GE

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION
Gene Name

POMC proopiomelanocortin [Homo sapiens]

Synonyms

ACTH; adrenocorticotrophic hormone; adrenocorticotropin; alpha-melanocyte-stimulating hormone; alpha-MSH; beta-endorphin; beta-lipotropin; beta-LPH; beta-melanocyte-stimulating hormone; beta-MSH; CLIP; corticotropin-like intermediary peptide; Corticotropin-lipotropin; gamma-LPH; gamma-MSH; lipotropin beta; lipotropin gamma; LPH; melanotropin alpha; melanotropin beta; melanotropin gamma; met-enkephalin; MSH; NPP; OTTHUMP00000200965; POC; POMC; pro-ACTH-endorphin; proopiomelanocortin; pro-opiomelanocortin; proopiomelanocortin preproprotein; proopiomelanocortin1

Gene ID

5443

mRNA Refseq

NM_001035256

Protein Refseq

NP_001030333

MIM

176830

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UniProt ID	P01189
Chromosome Location	2p23.3
Pathway	Adipocytokine signaling pathway; Class A/1 (Rhodopsin-like receptors); G alpha (i) signalling events; G alpha (s) signalling events; G-protein activation; GPCR downstream signaling; GPCR ligand binding; Glucocorticoid receptor regulatory network; Melanogenesis; Metabolism of amino acids and derivatives; Opioid Signalling; Peptide hormone biosynthesis; Peptide ligand-binding receptors; Signaling by GPCR; Syndecan-3-mediated signaling events.
Function	G-protein-coupled receptor binding; receptor binding; hormone activity; type 1 melanocortin receptor binding; type 3 melanocortin receptor binding; type 4 melanocortin receptor binding

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