

## Recombinant Human Pro-opiomelanocortin, His-tagged

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

### SPECIFICATION

<b>Product Overview</b>	Recombinant human POMC protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	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, $\mu$ -MSH, ACTH, $\mu$ -MSH, CLIP, Lipotropin $\mu$ , Lipotropin $\mu$ , $\mu$ -MSH, $\mu$ 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.
<b>Purity</b>	> 85% by SDS - PAGE
<b>Formulation</b>	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 50% glycerol, 0.2M NaCl.
<b>Molecular Weight</b>	28.9 kDa (262aa), confirmed by MALDI-TOF(molecular weight on SDS-PAGE will appear higher)
<b>Concentration</b>	0.25mg/ml (determined by Bradford assay)

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**Sequences of amino acids**

MGSSHHHHHH SSGLVPRGSH MWCLESSQCQ DLTTESNLLE CIRACKPDLS  
 AETPMFPGNG DEQPLTENPR KYVMGHFRWD RFGRRNSSSSGSSGAGQKRE  
 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; adrenocorticotrop 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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<b>UniProt ID</b>	P01189
<b>Chromosome Location</b>	2p23.3
<b>Pathway</b>	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.
<b>Function</b>	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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