Recombinant Human POMC, His-tagged

Cat. No. POMC-30690TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human POMC with an N terminal His tag; 262aa, 28.9kDa inclusive of tag.
Species	Human
Source	E.coli
ProteinLength	241 amino acids
Description	This gene encodes a polypeptide hormone precursor that undergoes extensive, tissue-specific, post-translational processing via cleavage by subtilisin-like enzymes known as prohormone convertases. There are eight potential cleavage sites within the polypeptide precursor and, depending on tissue type and the available convertases, processing may yield as many as ten biologically active peptides involved in diverse cellular functions. The encoded protein is synthesized mainly in corticotroph cells of the anterior pituitary where four cleavage sites are used; adrenocorticotrophin, essential for normal steroidogenesis and the maintenance of normal adrenal weight, and lipotropin beta are the major end products. In other tissues, including the hypothalamus, placenta, and epithelium, all cleavage sites may be used, giving rise to peptides with roles in pain and energy homeostasis, melanocyte stimulation, and immune modulation. These include several distinct melanotropins, lipotropins, and endorphins that are contained within the adrenocorticotrophin and beta-lipotropin peptides. Mutations in this gene have been associated with early onset obesity, adrenal insufficiency, and red hair pigmentation.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	Alternatively spliced transcript variants encoding the same protein have been described.
Conjugation	HIS
Molecular Weight	28.900kDa inclusive of tags
Form	Liquid
Purity	by SDS-PAGE
Storage buffer	Preservative: NoneConstituents: 50% Glycerol, 0.2M Sodium chloride, 20mM Tris HCl, 1mM DTT, pH 8.0
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGSSHHHHHHSSGLVPRGSHMWCLESSQCQDLTTESNLLECIRACKPDLSAETPM FPGNGDEQPLTENPRKYVMGHFRWDRFGRRNSSSSGSSGAGQKREDVSAGEDC GPLPEGGPEPRSDGAKPGPREGKRSYSMEHFRWGKPVGKKRRPVKVYPNGAEDE SAEAFPLEFKRELTGQRLREGDGPDGPADDGAGAQADLEHSLLVAAEKKDEGPYR MEHFRWGSPPKDKRYGGFMTSEKSQTPLVTLFKNAIIKNAYKKGE

GENE INFORMATION

Gene Name	POMC proopiomelanocortin [Homo sapiens]
Official Symbol	POMC
Synonyms	POMC; proopiomelanocortin; pro-opiomelanocortin; ACTH; adrenocorticotropic hormone; adrenocorticotropin; alpha melanocyte stimulating hormone; beta

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	endorphin; beta lipotropin; beta melanocyte stimulating hormone; CLIP; LPH; MSH; NPP; POC;
Gene ID	5443
mRNA Refseq	NM_000939
Protein Refseq	NP_000930
MIM	176830
Uniprot ID	P01189
Chromosome Location	2p23
Pathway	Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; Androgen biosynthesis, organism-specific biosystem; Biological oxidations, organism-specific biosystem; Class A/1 (Rhodopsin-like receptors), organism-specific biosystem;
Function	G-protein coupled receptor binding; hormone activity; hormone activity; receptor binding; type 1 melanocortin receptor binding;

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA