

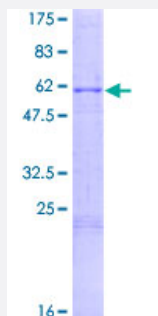
Full-Length

POMC (Human) Recombinant Protein (P02)

Catalog # H00005443-P02

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human POMC full-length ORF (NP_000930.1, 1 a.a. - 267 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MPRSCCSRSGALLLALLLQASMEVRGWCLESSQCQDLTTESNLLECIRACKPDLSAETPMFPGN
GDEQPLTENPRKYVMGHFRWDRFGRRNSSSSGSSGAGQKREDVSAGEDCGPLPEGGPEPRS
DGAKPGPREGKRSYSMEHFRWGKPVGKKRRPVKVYPNGAEDESAEAFPLEFKRELTGQRLRE
GDGPDGPADDGAGAQADLEHSLLVAAEKKDEGPYRMEHFRWGSPPKDKRYGGFMTSEKSQTP
LVTLFKNAIKNAYKKGE

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

55.8

Preparation Method

[in vitro wheat germ expression system](#)

Purification

Glutathione Sepharose 4 Fast Flow

Quality Control Testing

12.5% SDS-PAGE Stained with Coomassie Blue.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Storage Instruction

Store at -80°C. Aliquot to avoid repeated freezing and thawing.

Note

Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — POMC

Entrez GeneID [5443](#)

GeneBank Accession# [NM_000939.2](#)

Protein Accession# [NP_000930.1](#)

Gene Name POMC

Gene Alias ACTH, CLIP, LPH, MSH, NPP, POC

Gene Description proopiomelanocortin

Omim ID [176830 609830](#)

Gene Ontology [Hyperlink](#)

Gene Summary

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-lipotrope peptides. Mutations in this gene have been associated with early onset obesity, adrenal insufficiency, and red hair pigmentation. Alternatively spliced transcript variants encoding the same protein have been described. [provided by RefSeq]

Other Designations

OTTHUMP00000119991|adrenocorticotrophic hormone|adrenocorticotropin|alpha-MSH|alpha-melanocyte-stimulating hormone|beta-LPH|beta-MSH|beta-endorphin|beta-melanocyte-stimulating hormone|corticotropin-like intermediary peptide|gamma-LPH|gamma-MSH|lipotropin b

Pathway

- [Adipocytokine signaling pathway](#)
- [Melanogenesis](#)
- [Neuroactive ligand-receptor interaction](#)

Disease

- [Adenocarcinoma](#)
- [Alcoholism](#)
- [Anorexia Nervosa](#)
- [Asthma](#)
- [Atherosclerosis](#)
- [Attention Deficit Disorder with Hyperactivity](#)
- [Autistic Disorder](#)
- [Body Weight](#)
- [Breast Neoplasms](#)
- [Bulimia](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Chronic Disease](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Connective Tissue Diseases](#)
- [Diabetes Mellitus](#)

- [Disease Models](#)
- [Disease Susceptibility](#)
- [Drug Toxicity](#)
- [Edema](#)
- [Esophageal Neoplasms](#)
- [Fatigue Syndrome](#)
- [Fetal Diseases](#)
- [Genetic Predisposition to Disease](#)
- [Hypercholesterolemia](#)
- [Hyperparathyroidism](#)
- [Infection](#)
- [Inflammation](#)
- [Lymphoma](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Mental Disorders](#)
- [Metabolic Syndrome X](#)
- [Microsatellite Instability](#)
- [Musculoskeletal Diseases](#)
- [NARP](#)
- [Obesity](#)
- [Osteoporosis](#)
- [Ovarian Failure](#)
- [Pain](#)
- [Parkinson disease](#)
- [Polycystic Ovary Syndrome](#)

- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Psychiatric Status Rating Scales](#)
- [Psychophysiologic Disorders](#)
- [Puberty](#)
- [Skin Diseases](#)
- [Skin Neoplasms](#)
- [Somatoform Disorders](#)
- [Substance-Related Disorders](#)
- [Thinness](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)
- [Translocation](#)
- [Weight Loss](#)