

# Human POMC, Tag Free Protein

HA211433



<b>Product name:</b>	Human POMC, Tag Free
<b>Species reactivity:</b>	Human
<b>Bio-Activity:</b>	Testing in progress.
<b>Protein construction description:</b>	A DNA sequence encoding the human POMC protein (P01189) (Trp 26-Glu 267) was expressed with tag Free.

<b>Background:</b>	Pro-opiomelanocortin (POMC) is a precursor polypeptide with 241 amino acid residues. POMC is synthesized in corticotrophs of the anterior pituitary from the 267-amino-acid-long polypeptide precursor pre-pro-opiomelanocortin (pre-POMC), by the removal of a 26-amino-acid-long signal peptide sequence during translation. POMC is part of the central melanocortin system. This gene encodes a preproprotein 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 preproprotein 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. The antimicrobial melanotropin alpha peptide exhibits antibacterial and antifungal activity. 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.
<b>Purity:</b>	>95% as determined by SDS-PAGE.
<b>Endotoxin:</b>	Less than 1.0 EU per µg by the LAL method.
<b>Fragment region:</b>	POMC (26-267)
<b>Source:</b>	HEK293
<b>Accession:</b>	P01189
<b>Predicted molecular mass:</b>	27.5 kD
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
<b>Reconstitution:</b>	Reconstitute at 250 µg/ml in sterile water.
<b>Storage:</b>	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20°C to -80°C. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

Hangzhou Huaan Biotechnology Co.,Ltd.

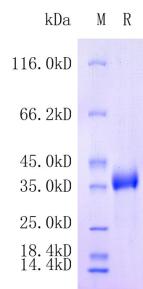
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## Images



**Fig1:** Protein on SDS-PAGE under reducing (R) condition.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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