

## Product datasheet for **CF506615**

### ACTH (POMC) Mouse Monoclonal Antibody [Clone ID: OTI4G4]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI4G4
Applications:	IHC, WB
Recommended Dilution:	WB 1:4000, IHC: 1:150
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human POMC(NP_001030333) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	26.6 kDa
Gene Name:	proopiomelanocortin
Database Link:	<a href="#">NP_001030333</a> <a href="#">Entrez Gene 5443 Human</a> <a href="#">P01189</a>



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**Background:**

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. Alternatively spliced transcript variants encoding the same protein have been described. [provided by RefSeq, Jul 2008]

**Synonyms:**

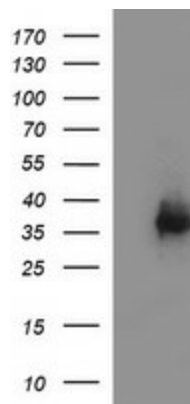
ACTH; CLIP; LPH; MSH; NPP; POC

**Protein Families:**

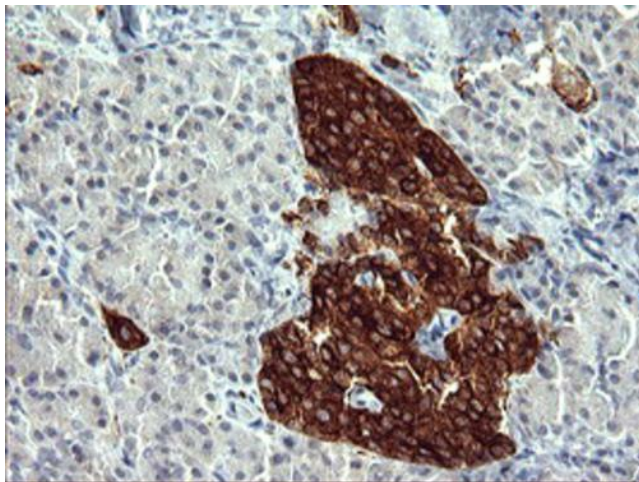
Druggable Genome

**Protein Pathways:**

Adipocytokine signaling pathway, Melanogenesis

**Product images:**

HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY POMC [RC215351], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-POMC. Positive lysates [LY422129] (100ug) and [LC422129] (20ug) can be purchased separately from OriGene.



Immunohistochemical staining of paraffin-embedded Human pancreas tissue within the normal limits using anti-POMC mouse monoclonal antibody. ([TA506615])