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Goat Anti-Proopiomelanocortin / POMC Antibody
Peptide-affinity purified goat antibody
Catalog # AF1868a

Specification

Goat Anti-Proopiomelanocortin / POMC Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P01189
Other Accession	NP_001030333, 5443
Reactivity	**Human, Mouse**
Predicted	**Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**29424**

Goat Anti-Proopiomelanocortin / POMC Antibody - Additional Information

Gene ID 5443

Other Names
Pro-opiomelanocortin, POMC, Corticotropin-lipotropin, NPP, Melanotropin gamma, Gamma-MSH, Potential peptide, Corticotropin, Adrenocorticotropic hormone, ACTH, Melanotropin alpha, Alpha-MSH, Corticotropin-like intermediary peptide, CLIP, Lipotropin beta, Beta-LPH, Lipotropin gamma, Gamma-LPH, Melanotropin beta, Beta-MSH, Beta-endorphin, Met-enkephalin, POMC

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-Proopiomelanocortin / POMC Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Proopiomelanocortin / POMC Antibody - Protein Information

Name POMC

Function
[Corticotropin]: Stimulates the adrenal glands to release cortisol. [Melanocyte-stimulating hormone beta]: Increases the pigmentation of skin by increasing melanin production in melanocytes. [Met-enkephalin]: Endogenous opiate.

Cellular Location
Secreted {ECO:0000250|UniProtKB:P01193}. Note=Melanocyte-stimulating hormone alpha and beta-endorphin are stored in separate granules in hypothalamic POMC neurons, suggesting that secretion may be under the control of different regulatory mechanisms {ECO:0000250|UniProtKB:P01193}

Tissue Location
ACTH and MSH are produced by the pituitary gland.

Goat Anti-Proopiomelanocortin / POMC Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

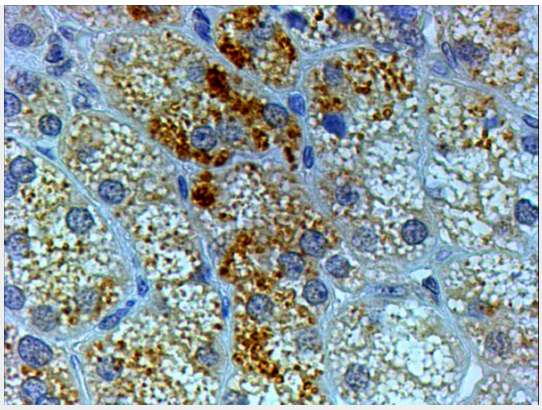
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-Proopiomelanocortin / POMC Antibody - Images



AF1868a (0.1 µg/ml) staining of lysates of cell line NIH3T3 (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

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AF1868a (4 µg/ml) staining of paraffin embedded Human Adrenal Gland. Steamed antigen retrieval with citrate buffer pH 6, HRP-staining.

Goat Anti-Proopiomelanocortin / POMC Antibody - 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.

Goat Anti-Proopiomelanocortin / POMC Antibody - References

Comprehensive analysis of common genetic variation in 61 genes related to steroid hormone and insulin-like growth factor-I metabolism and breast cancer risk in the NCI breast and prostate cancer cohort consortium. Canzian F, et al. Hum Mol Genet, 2010 Oct 1. PMID 20634197.
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Physiogenomic analysis of statin-treated patients: domain-specific counter effects within the ACACB gene on low-density lipoprotein cholesterol? Rua□o G, et al. Pharmacogenomics, 2010 Jul. PMID 20602615.
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