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Mouse Monoclonal Antibody to POMC

Purified Mouse Monoclonal Antibody
Catalog # AO2376a

Product Information

Application	WB, E
Primary Accession	P01189
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5D3A10
Isotype	Mouse IgG2a
Calculated MW	29424
Description	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.;
Immunogen	Purified recombinant fragment of human POMC (AA: 1-150) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide
Application Note	ELISA: 1/10000; WB: 1/500 - 1/2000;

Additional Information

Gene ID	5443
Other Names	LPH; MSH; NPP; POC; ACTH; CLIP
Dilution	WB~~1:1000 E~~N/A

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	Mouse Monoclonal Antibody to POMC is for research use only and not for use in diagnostic or therapeutic procedures.

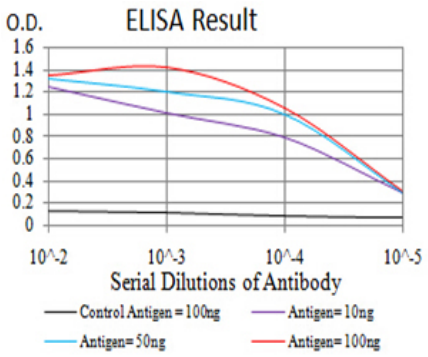
Protein Information

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.

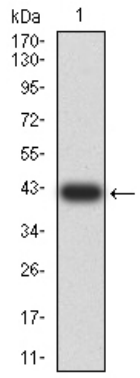
References

1.Tumour Biol. 2015 Mar;36(3):1811-7. ; 2.J Neurosci. 2013 Feb 20;33(8):3624-32.;

Images

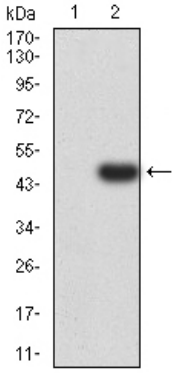


Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)



Western blot analysis using POMC mAb against human POMC (AA: 1-150) recombinant protein. (Expected MW is 41.9 kDa)

Western blot analysis using POMC mAb against HEK293 (1) and POMC (AA: 1-150)-hIgGFc transfected HEK293 (2)



cell lysate.

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