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ARG41468
anti-POMC / Proopiomelanocortin antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes POMC / Proopiomelanocortin
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	POMC / Proopiomelanocortin
Species	Human
Immunogen	Synthetic peptide of Human POMC / Proopiomelanocortin.
Conjugation	Un-conjugated
Alternate Names	Alpha-MSH; Beta-MSH; CLIP; Gamma-MSH; LPH; Corticotropin-lipotropin; NPP; ACTH; POMC; Gamma-LPH; Adrenocorticotropic hormone; MSH; Beta-LPH; Pro-opiomelanocortin; POC

Application Instructions

Application table

Application	Dilution
IHC-P	1:100 - 1:500
IP	1:50
WB	1:500 - 1:2000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	Mouse pituitary
Observed Size	~ 28 kDa

Properties

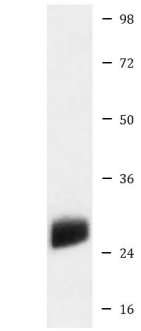
Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	POMC
Gene Full Name	proopiomelanocortin
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. 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. [provided by RefSeq, Nov 2014]
Function	ACTH stimulates the adrenal glands to release cortisol. MSH (melanocyte-stimulating hormone) increases the pigmentation of skin by increasing melanin production in melanocytes. Beta-endorphin and Met-enkephalin are endogenous opiates. [UniProt]
Calculated Mw	29 kDa
PTM	Specific enzymatic cleavages at paired basic residues yield the different active peptides. O-glycosylated; reducing sugar is probably N-acetylgalactosamine. [UniProt]
Cellular Localization	Secreted. 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. [UniProt]

Images



Mouse pituitary

ARG41468 anti-POMC / Proopiomelanocortin antibody WB image

Western blot: Mouse pituitary lysate stained with ARG41468 anti-POMC / Proopiomelanocortin antibody.