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Anti-ACTH (N-Terminal) Antibody

Recombinant Mouse Monoclonal Antibody
Catalog # AH13438

Product Information

Application	IHC-P, IF, FC, E
Primary Accession	P01189
Other Accession	1897
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	r57
Calculated MW	29424

Additional Information

Gene ID	5443
Other Names	Adrenocorticotropin; alpha or beta or gamma Melanocyte Stimulating Hormone (MSH) or Melanotropin; beta-Endorphin; beta or gamma Lipotropin (LPH); CLIP; Met Enkephalin; POC; POMC
Application Note	ELISA (For coating, order Ab without BSA); ,Flow Cytometry (0.5-1ug/million cells); Immunofluorescence (0.5-1ug/ml); ,Immunohistology (Formalin-fixed) (0.5-1.0ug/ml for 30 minutes at RT) ,(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate Buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined.
Format	200ug/ml of recombinant MAb purified by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Anti-ACTH (N-Terminal) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

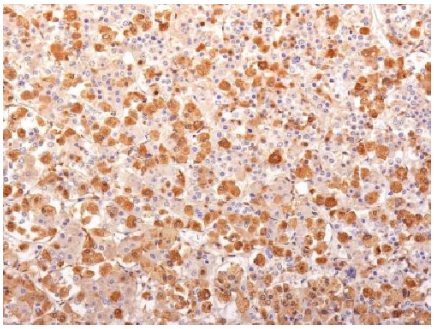
Name	POMC
Function	[Corticotropin]: Stimulates the adrenal glands to release cortisol. [Melanocyte-stimulating hormone beta]: Increases the pigmentation of skin by increasing melanin production in melanocytes. [Met-enkephalin]:

	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.

Background

ACTH (same as Corticotropin) is a 39 amino acid active peptide produced by the anterior pituitary. This MAb is specific to Synacthen (aa1-24 of ACTH); does not react with CLIP (aa17-39 of ACTH). POMC (pro-opiomelanocortin or corticotropin-lipotropin) is a 267 amino acid polypeptide hormone precursor that goes through extensive, tissue-specific posttranslational processing by convertases. POMC is cleaved into ten hormone chains named NPP, ACTH, alpha-MSH (Melanocyte Stimulating Hormone), beta-MSH, gamma-MSH, CLIP (corticotropin-like intermediary peptide), Lipotropin-beta, Lipotropin-gamma, beta-endorphin and Met-enkephalin. ACTH is also produced by cells of immune system (T-cells, B-cells, and macrophages) in response to stimuli associated with stress. Anti-ACTH is a useful marker in classification of pituitary tumors and the study of pituitary disease. It reacts with ACTH-producing cells (corticotrophs). It also may react with other tumors (e.g. some small cell carcinomas of the lung) causing paraneoplastic syndromes by secreting ACTH.

Images



Formalin-fixed, paraffin-embedded human Pituitary Gland stained with ACTH Recombinant Mouse Monoclonal Antibody (r57).