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[Marker Primary Antibody]

Rabbit Anti-ACTH (1-39)/Biotin Conjugated antibody

Catalog Number: SL0443R-Bio

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-ACTH (1-39)/Biotin
Immunogen:	KLH conjugated synthetic peptide derived from human ACTH(1-39)
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Rat(predicted:Mouse,Cow,Goat)
Background:	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

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	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]. **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. **Subcellular Location:** Secreted. **Tissue Specificity:** ACTH and MSH are produced by the pituitary gland. **Post-translational modifications:** Specific enzymatic cleavages at paired basic residues yield the different active peptides. O-glycosylated; reducing sugar is probably N-acetylgalactosamine. DISEASE: Defects in POMC may be associated with susceptibility to obesity (OBESITY) [MIM:601665]. It is a condition characterized by an increase of body weight beyond the limitation of skeletal and physical requirements, as the result of excessive accumulation of body fat. Defects in POMC are the cause of pro-opiomelanocortinin deficiency (POMCD) [MIM:609734]. Affected individuals present early-onset obesity, adrenal insufficiency and red hair. **Similarity:** Belongs to the POMC family. **Database links:** **Entrez Gene:** 5443 Human **Entrez Gene:** 18976 Mouse **Entrez Gene:** 24664 Rat Omim: 176830 Human **SwissProt:** P01189 Human **SwissProt:** P01193 Mouse **SwissProt:** P01194 Rat **Unigene:** 1897 Human **Unigene:** 277996 Mouse **Unigene:** 108195 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. Adrenocorticotropic hormone(Adrenorticotrophin hormons, ACTH)is a polypeptide hormone secreted by anterior pituitary cells， and is the main regulator of adrenal cortical activity.。

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	This antibody reacts with human ACTH,It cross-reacts with ACTH from various other mammals and can be used for the functional classification of pituitary adenomas, helping to distinguish primary from metastatic pituitary tumours; some neuroendocrine tumours such as pheochromocytoma may also show positive reactivity.

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