



Rabbit Anti-ACTH (1-39) antibody

SL0443R

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| Product Name: | ACTH (1-39) |
| Chinese Name: | 促肾上腺皮质激素(1-39)抗体 |
| Alias: | Adrenocorticotrophic hormone; Adrenocorticotropin; Adrenocorticotropin Hormone; Alpha Melanocyte Stimulating Hormone; Beta Lipotropin; Beta Melanocyte Stimulating Hormone; CLIP; Corticotropin; Corticotropin Like Intermediary Peptide; Corticotropin lipotropin precursor; Lipotropin Beta; Lipotropin Gamma; LPH; Melanotropin Alpha; Met Enkephalin; MSH; NPP; POC; POMC; Pro opiomelanocortin; Proopiomelanocortin; COLI_HUMAN. |
| Organism Species: | Rabbit |
| Clonality: | Polyclonal |
| React Species: | Human,Mouse,Rat,Cow,Goat, |
| Applications: | ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user. |
| Molecular weight: | 4.5kDa |
| Cellular localization: | Secretory protein |
| Form: | Lyophilized or Liquid |
| Concentration: | 1mg/ml |
| immunogen: | KLH conjugated synthetic peptide derived from human ACTH:1-39/39 |
| Lsotype: | IgG |
| Purification: | affinity purified by Protein A |
| Storage Buffer: | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol. |
| 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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| PubMed: | PubMed |
| Product Detail: | 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. [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-opiomelanocortin deficiency (POMCD) [MIM:609734]. Affected individuals present early-onset obesity, adrenal insufficiency and red hair.

Similarity:

Belongs to the POMC family.

SWISS:

P01189

Gene ID:
5443

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

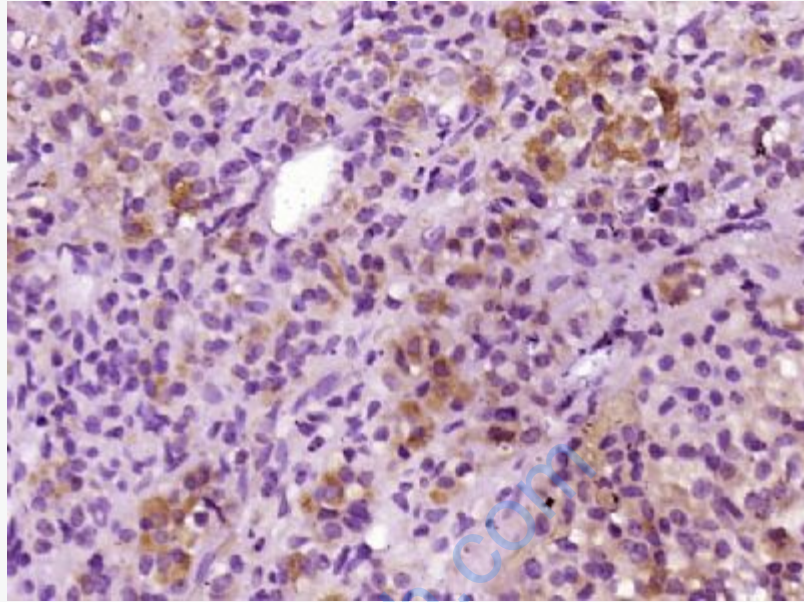
[Unigene: 277996](#)Mouse

[Unigene: 108195](#)Rat

Important Note:

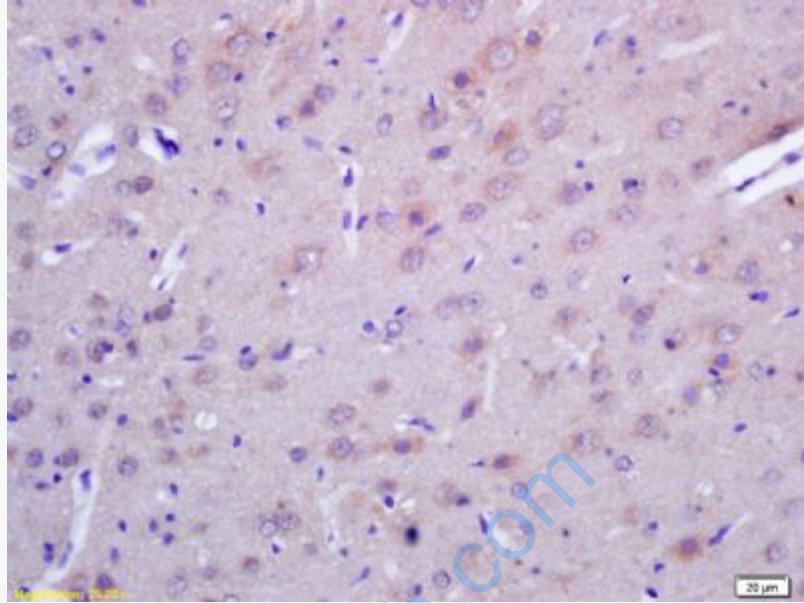
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促肾上腺皮质激素(Adrenocorticotrophin hormones, ACTH)是垂体前叶细胞分泌的一种多肽激素,是肾上腺皮质活性的主要调节者。此抗体可与人的ACTH反应,与多种其它哺乳动物的ACTH有React Species,可用于垂体腺瘤的功能性分类,有助于区分原发性和转移型垂体Tumour,嗜铬细胞瘤等部分神经内分泌Tumour也可出现阳性反应。

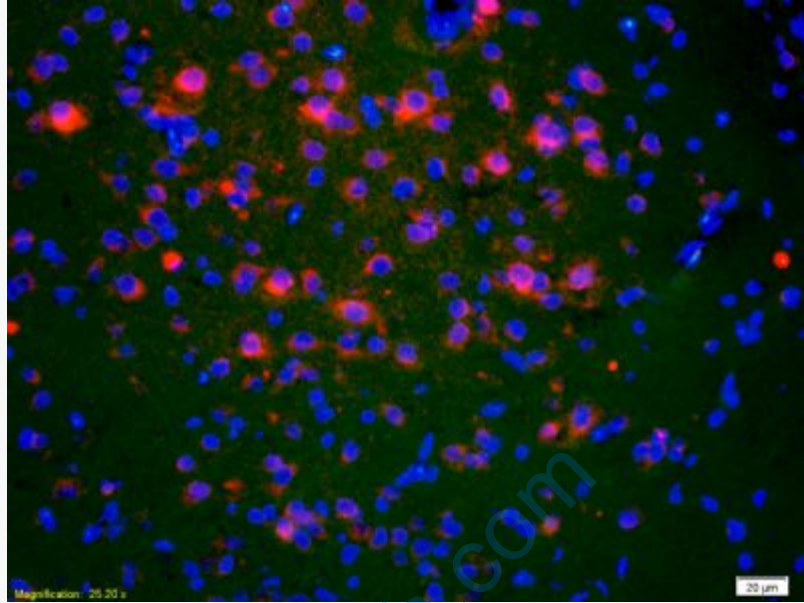


Picture:

Paraformaldehyde-fixed, paraffin embedded (Human pituitary tumor); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ACTH (1-39)) Polyclonal Antibody, Unconjugated (SL0443R) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (sp-0023) for 20 minutes and DAB staining.



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-ACTH(1-39) Polyclonal Antibody, Unconjugated(SL0443R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue;4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min;

Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-ACTH(1-39) Polyclonal Antibody, Unconjugated(SL0443R) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(SL0443R)used at 1:200 dilution for 40 minutes at 37°C.

DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei