

Rabbit Anti-beta endorphin antibody

SL1195R

Product Name beta endorphin

Chinese Name β -内啡肽/ β endorphin 抗体

Alias β -Endorphin; β endorphin; β endorphin; Beta-endorphin; Corticotropin lipotropin; POMC; Proopiomelanocortin; COLI_HUMAN; β -EP; β EP; β EP. β 内啡肽; β 内啡肽;

Research Area immunology Neurobiology Endocrinopathy

Immunogen Species Rabbit

Clonality Polyclonal

React Species Mouse(predicted:Human,Rat,Cow,Sheep)

IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 4.5kDa

Cellular localization Secretory protein

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human ACTH: 237-267/267

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed [PubMed](#)

Product This gene encodes a polypeptide hormone precursor that undergoes extensive,

Detail

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-opiomelanocortinin 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: 24664](#) Rat

[Omim: 176830](#) Human

[SwissProt: P01189](#) Human

[SwissProt: P01194](#) Rat

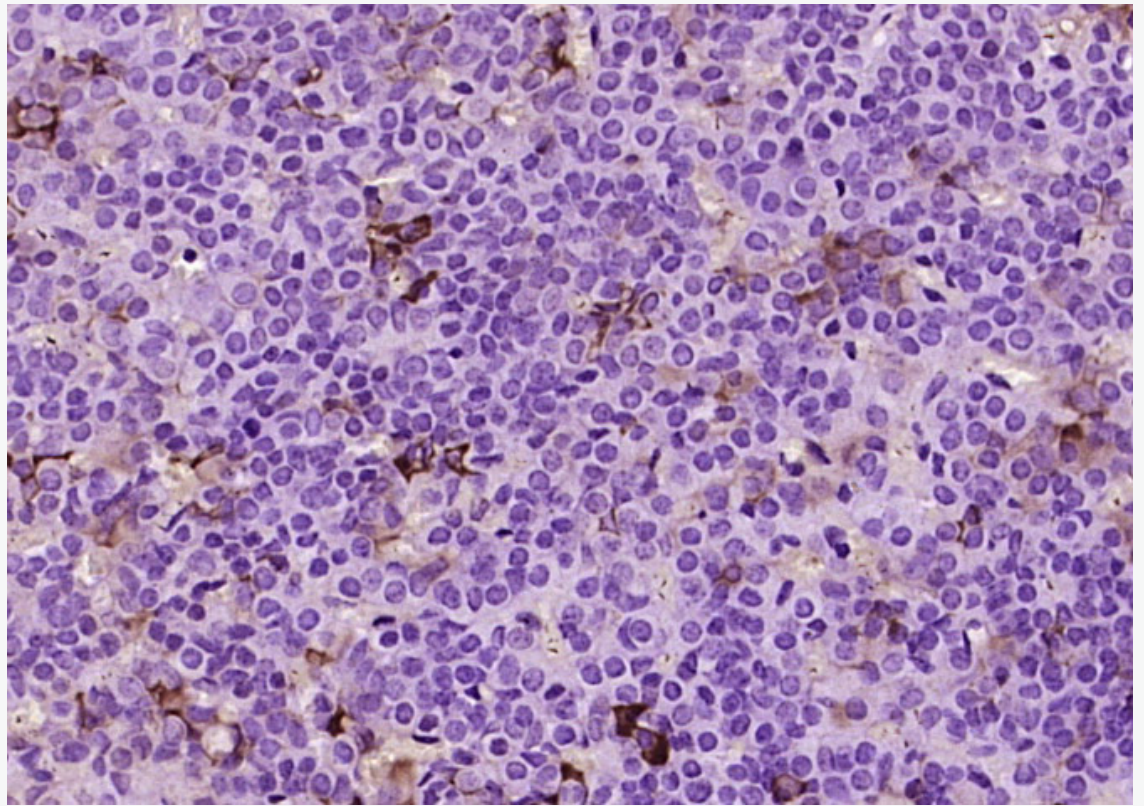
[Unigene: 1897](#) Human

内啡肽是体内自己产生的一类内源性的具有类似吗啡作用的肽类物质，是内啡肽(endogenous)和吗啡(morphine)的缩些。

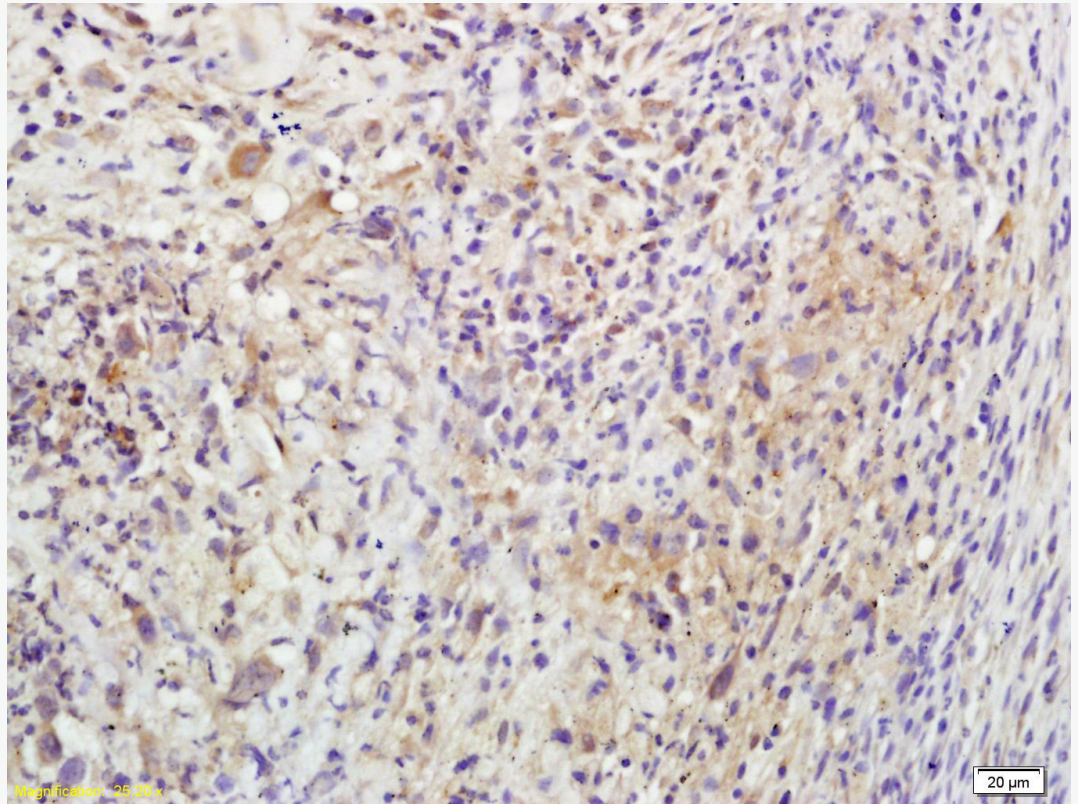
内啡肽(endorphin)具有吗啡样活性的神经肽的总称亦称安多芬或脑内啡，是由脑垂体分泌的类吗啡生物化学合成物激素。它是由脑下垂体和脊椎动物的丘脑下部所分泌的氨基化合物(肽)。它能与吗啡受体结合，产生跟吗啡、鸦片剂一样有止痛和欣快感。等同天然的镇痛剂。利用药物可增加脑内啡的分泌效果。英文 Endorphin 是 endomorphin 的简化写法，endo 有内在之含意，而 morphin 则为吗啡的 Product Name，故 endorphin 有大脑自我制造的类吗啡物质之意。

内啡肽是体内自己产生的一类内源性的具有类似吗啡作用肽类物质。是内源(endogenous)和吗啡(morphine)的缩略词。内啡肽可包括 α -内啡肽、 β -内啡肽、 γ -内啡肽、蛋氨酸-脑啡肽、亮氨酸-脑啡肽、强啡肽 A、强啡肽 B 等，都具有很强的类吗啡活性。蛋氨酸-脑啡肽的氨基酸序列为酪氨酸-甘氨酸-甘氨酸-苯丙氨酸-蛋氨酸。亮氨酸-脑啡肽第五个氨基酸不是蛋氨酸而是亮氨酸。 α 、 β 、 γ -内啡肽分别为 11 肽、3 肽、18 肽，它们的前五个氨基酸序列与蛋氨酸-脑啡肽的五肽相同。这类肽具有很强的生理功能。向动物脑室中注射内啡肽，可引起全身深度失去痛觉，体温下降，行为变得木僵。再施以吗啡拮抗剂纳洛酮(naloxone)，不再有上述失痛感觉。内啡肽诱导出的行为表明，这些肽可能参与感情应答的调节从垂体中分离出的内啡肽，其代表为 β -内啡肽及镇痛作用更强的强啡肽。它们都属于内源性阿片肽，是机体抗痛系统的组成部分，具有生理意义。当机体有伤痛刺激时，内源性阿片肽被释放出来以对抗疼痛。在内啡肽的激发下，人的身心处于轻松愉悦的状态中，免疫系统实力得以强化，并能顺利入梦，消除失眠症。

**Product
Picture**



Paraformaldehyde-fixed, paraffin embedded (Mouse pituitary gland); 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 (beta endorphin) Polyclonal Antibody, Unconjugated (SL1195R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: mouse lymphoma; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (1M, 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-beta endorphin Polyclonal Antibody, Unconjugated(SL1195R) 1:600, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining