

Anti-ACTH/POMC Antibody Picoband™

Catalog Number: PB9039

About POMC

Adrenocorticotrophic hormone (ACTH), also known as corticotropin, is a polypeptide tropic hormone produced and secreted by the anterior pituitary gland. It is an important component of the hypothalamic-pituitary-adrenal axis and is often produced in response to biological stress (along with its precursor corticotropin-releasing hormone from the hypothalamus). Its principal effects are increased production and release of corticosteroids. ACTH stimulates secretion of glucocorticoid steroid hormones from adrenal cortex cells, especially in the zona fasciculata of the adrenal glands. This gene can influence steroid hormone secretion by both rapid short-term mechanisms that take place within minutes and slower long-term actions. Besides, ACTH also enhances transcription of mitochondrial genes that encode for subunits of mitochondrial oxidative phosphorylation systems.

Overview

Product Name	Anti-ACTH/POMC Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-ACTH/POMC Antibody Picoband™ catalog # PB9039. Tested in IHC applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P01189

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human ACTH, different from the related mouse and rat sequences by two amino acids.
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, Human, By Heat

Anti-ACTH/POMC Antibody Picoband™ (PB9039) Images

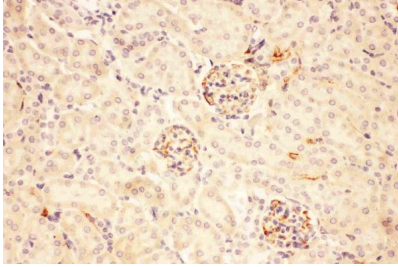


Figure 1. IHC analysis of ACTH using anti-ACTH antibody (PB9039). ACTH was detected in paraffin-embedded section of mouse kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ACTH Antibody (PB9039) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

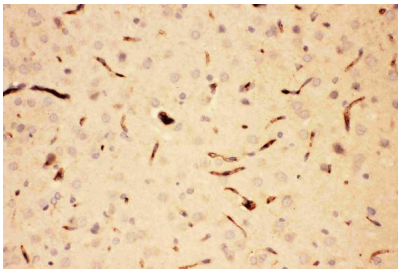


Figure 2. IHC analysis of ACTH using anti-ACTH antibody (PB9039). ACTH was detected in paraffin-embedded section of rat brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ACTH Antibody (PB9039) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

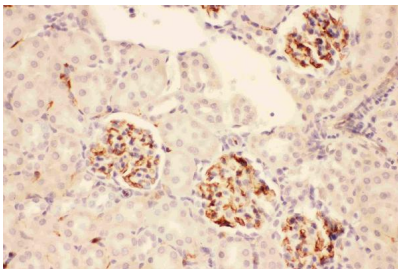


Figure 3. IHC analysis of ACTH using anti-ACTH antibody (PB9039). ACTH was detected in paraffin-embedded section of rat kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ACTH Antibody (PB9039) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

2 Publications Citing This Product

1. PubMed ID: 16355451, Chen L, Wang H, Zhao Z, Zhang Y, Huang G. Am J Chin Med. 2005;33(6):945-55. Effects Of The Extract Of A Chinese Herb Tripterygium Wilfordii Hook F On Rat Pituitary Gland.
2. PubMed ID: 25624795, Huo J, Liu J, Wang J, Zhang Y, Wang C, Yang Y, Sun W, Xu S. Neural Regen Res. 2012 Aug 5;7(22):1729-35. Doi: 10.3969/J.Issn.1673-5374.2012.22.008. Early Hyperbaric Oxygen Therapy Inhibits Aquaporin 4 And Adrenocorticotrophic Hormone Expression In T...

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