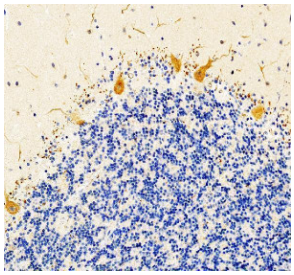
PACAP Antibody / Neuropeptide Antibody (FY13488)

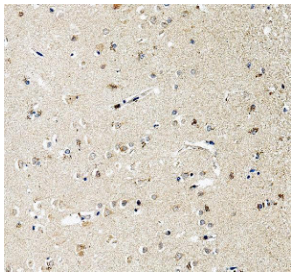
Catalog No.	Formulation	Size
FY13488	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

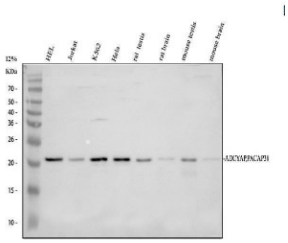
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q14749
Applications	Western Blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This PACAP Antibody / Neuropeptide Antibody is available for research use only.



PACAP Antibody Human Cerebellum IHC. Immunohistochemical staining of FFPE human cerebellum tissue using PACAP antibody following heat-induced epitope retrieval in pH8 EDTA buffer. Staining was visualized using an HRP secondary antibody with DAB chromogen. Strong cytoplasmic staining is observed in Purkinje neurons at the interface of the molecular and granular layers, with lighter staining of surrounding neuronal processes, consistent with the characteristic distribution of the neuropeptide PACAP in the cerebellum. This result demonstrates that the PACAP antibody is suitable for detecting endogenous PACAP in FFPE human brain tissue.



PACAP Antibody Human Cerebral Cortex IHC. Immunohistochemical staining of FFPE human cerebral cortex tissue using PACAP antibody following heat-induced epitope retrieval in pH8 EDTA buffer. Staining was visualized using an HRP secondary antibody with DAB chromogen. Predominantly cytoplasmic staining is observed in cortical neurons with lighter background staining throughout the surrounding neuropil, consistent with the neuronal expression pattern of the neuropeptide PACAP. This result demonstrates that the PACAP antibody is suitable for detecting endogenous PACAP in FFPE human brain tissue.



PACAP Antibody Human, Rat and Mouse WB. Western blot analysis of human HEL, Jurkat, K562, and HeLa cell lysates, along with rat testis, rat brain, mouse testis, and mouse brain tissue lysates using PACAP antibody. Lane 1: human HEL; Lane 2: human Jurkat; Lane 3: human K562; Lane 4: human HeLa; Lane 5: rat testis; Lane 6: rat brain; Lane 7: mouse testis; Lane 8: mouse brain. A specific band is detected at approximately 21 kDa across multiple samples. Although the predicted molecular weight of the ADCYAP1 precursor is approximately 19 kDa, migration at approximately 21-25 kDa has been reported and may reflect precursor processing, post-translational modification, or differences in electrophoretic mobility. This result demonstrates that the PACAP antibody is suitable for detecting endogenous neuropeptide precursor expression in both human and rodent cells and tissues.

Description

PACAP Antibody / Neuropeptide Antibody recognizes pituitary adenylate cyclase activating polypeptide (PACAP), a highly conserved neuropeptide encoded by the ADCYAP1 gene. Following proteolytic processing of its precursor protein, PACAP is generated primarily as the biologically active PACAP-38 and PACAP-27 peptides, which regulate cellular signaling through PAC1, VPAC1, and VPAC2 receptors. PACAP is abundantly expressed throughout the central nervous system, particularly in regions involved in learning, memory, neuroendocrine regulation, and sensory processing. A PACAP Antibody is widely used to investigate neuropeptide expression and neuronal signaling in normal physiology and disease.

As a multifunctional neuropeptide, PACAP regulates neurotransmission, neuronal differentiation, synaptic plasticity, hormone secretion, circadian rhythm, and cellular survival. It also contributes to immune modulation, vascular regulation, and protection against oxidative and metabolic stress. Prominent expression in the cerebral cortex, hippocampus, cerebellum, and hypothalamus has made PACAP an important target for studies of brain development, neural circuit function, and neuroprotective signaling. The diverse biological activities of this neuropeptide continue to drive research across neuroscience and neurobiology.

Abnormal PACAP expression or signaling has been linked to migraine, neurodegenerative disease, stroke, psychiatric disorders, chronic pain, epilepsy, inflammation, and several cancers. PACAP antibodies are suitable for applications including Western blotting, immunohistochemistry, and related protein detection methods when validated for the specific application. NSJ Bioreagents provides carefully validated antibodies to support investigations of neuropeptide biology, neuronal communication, neurodevelopment, and disease-associated signaling pathways. A PACAP Antibody / Neuropeptide Antibody is a valuable research reagent for detecting PACAP expression and advancing studies of nervous system function, neuroprotection, and neuroendocrine regulation.

Visit our ADCYAP1 Antibody / Pituitary Adenylate Cyclase Activating Polypeptide Antibody page to explore additional validated antibodies and research tools for investigating ADCYAP1 expression, PACAP signaling, neuropeptide biology, neuroendocrine regulation, and nervous system function.

Application Notes

Optimal dilution of the PACAP Antibody / Neuropeptide Antibody should be determined by the researcher.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human PACAP was used as the immunogen for the PACAP Antibody.

Storage

After reconstitution, the PACAP Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

PACAP antibody, Neuropeptide antibody, Pituitary Adenylate Cyclase Activating Polypeptide antibody, Adenylate Cyclase Activating Polypeptide antibody, PACAP38 precursor antibody, PACAP27 precursor antibody

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