

Product datasheet for AM32828PU-T

OriGene Technologies, Inc.

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ACTH (POMC) (1-24) Mouse Monoclonal Antibody [Clone ID: AH26]

Product data:

Product Type: Primary Antibodies

Clone Name: AH26

Applications: FC, IF, IHC, IP, WB

Recommended Dilution: ELISA: Use Antibody without BSA for Coating.

Western Blot: 0.5-1 µg/ml.

Flow Cytometry: 0.5-1 ug/106 cells. **Immunofluorescence:** 1-2 µg/ml.

Immunoprecipitation: 1-2 μg/500 μg protein lysate.

Immunohistochemistry on Frozen and Formalin-Fixed Paraffin Sections: 0.5-1 µg/ml for

30 minutes at RT.

No special pretreatment is required for staining of formalin-fixed, paraffin-embedded

tissues.

Recommended Positive Control: Normal pituitary gland or pituitary tumor.

Reactivity: Broad, Human, Mouse, Rat

Host: Mouse Isotype: IgG1

Clonality: Monoclonal

Immunogen: Synthetic peptide corresponding to amino acids 1-24 of Human ACTH.

Specificity: The antibody recognizes an epitope on the N-terminus of ACTH. The antibody reacts with

both ACTH and Synacthen. The antibody also reacts with the ACTH precursor molecule

POMC. However, the antibody does **not** cross-react with CLIP.

This monoclonal antibody is superb for staining routine formalin-fixed, paraffin-embedded tissues. The antibody labels corticotrophs in the adenohypophysis. The antibody is useful in the classification of pituitary adenomas. Likewise, the antibody can be used in the differential

identification of primary and metastatic tumors of the pituitary.

Cellular Localization: Cytoplasmic.





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Formulation: 10mM PBS

State: Purified

State: Liquid purified IgG fraction from Bioreactor Concentrate

Stabilizer: 0.05% BSA

Preservative: 0.05% Sodium Azide

Concentration: lot specific

Purification: Protein A/G Chromatography

Conjugation: Unconjugated

Storage: Store undiluted at 2-8°C.

Stability: Shelf life: one year from despatch.

Predicted Protein Size: 5 kDa (ACTH), ~30 kDa (POMC precursor). The Molecular Weight of POMC may vary

depending on isoform variation and post-translational modifications.

Gene Name: proopiomelanocortin

Database Link: Entrez Gene 5443 Human

P01189

Background: ACTH (Adrenocorticotrophic hormone) is produced and secreted by the anterior pituitary

gland, and is a key component of the hypothalamic-pituitary-adrenal axis. ACTH is

synthesized from the precursor molecule pre-opiomelanocorin (POMC). POMC undergoes proteolytic cleavages and processing to generate not only ACTH but also a number of other small biologically active peptides including alpha-MSH and beta-endorphin, all in cell type specific manners. The production of ACTH is triggered by biological stress. ACTH, in turn, then stimulates the secretion of corticosteroids by the adrenal cortex. The half-life of ACTH in human blood is only about ten minutes. An excess of ACTH can cause Cushing's syndrome

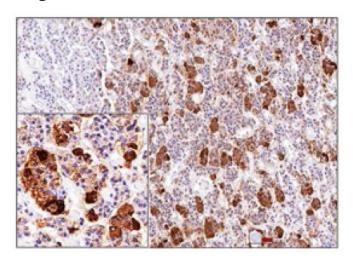
whereas ACTH deficiency can result in secondary adrenal insufficiency.

ACTH consists of 39 amino acids (aa), and can be proteolytically cleaved into different active fragments including CLIP (corticotropin-like intermediate lobe peptide), consisting of aa 17-39, which stimulates insulin production. Synacthen is an active synthetic form of ACTH, corresponding to the first 24 aa, which is used to conduct ACTH stimulation tests.

Synonyms: Corticotropin, POMC, Adrenocorticotropic hormone



Product images:



Formalin-fixed, Paraffin-Embedded Human pituitary gland stained with ACTH Antibody (Clone AH26) at 1/2000 using peroxidase-conjugate and DAB chromogen. Note cytoplasmic staining.