P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

ACTH (Adrenocorticotrophic Hormone); Clone 57
(Concentrate)

Availability/Contents:

Item #	Volume
RA0266-C.5	0.5 ml

Description:

Species:	Mouse
Immunogen:	N-terminal fragment of human ACTH conjugated to KLH
Clone:	57
Isotype:	IgG1, kappa
Entrez Gene ID:	5443 (Human)
Hu Chromosome Loc.:	2p23.3
Synonyms:	Adrenocorticotropin; alpha or beta or gamma Melanocyte Stimulating Hormone (MSH) or Melanotropin; beta-Endorphin; beta or gamma Lipotropin (LPH); CLIP; Met Enkephalin; POC; POMC
Mol. Weight of Antigen:	ACTH is ~5kDa, and the POMC precursor is ~30kDa. The molecular weight of POMC depends upon isoform variation and post-translational modifications.
Format:	200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Specificity:	This antibody is specific to Synacthen (aa 1-24 of ACTH); this antibody does not react with CLIP (aa 17-39 of ACTH). Anti-ACTH is a useful marker in classification of pituitary tumors and in the study of pituitary disease. It reacts with ACTH-producing cells (corticotrophs). It also may react with other tumors (e.g. some small cell carcinomas of the lung) causing paraneoplastic syndromes by secreting ACTH.
Background:	ACTH (same as Corticotropin) is a 39 amino acid active peptide produced by the anterior pituitary. POMC (pro-opiomelanocortin or corticotropin-lipotropin) is a 267 amino acid polypeptide hormone precursor that goes through extensive, tissue-specific, posttranslational processing by convertases. POMC is cleaved into ten hormone chains named NPP, ACTH, alpha-MSH (Melanocyte Stimulating Hormone), beta-MSH, gamma-MSH, CLIP (corticotropin-like intermediary peptide), Lipotropin-beta, Lipotropin-gamma, beta-endorphin, and Met-enkephalin. ACTH is also produced by cells of the immune system (T-cells, B-cells, and macrophages) in response to stimuli associated with stress.
Species Reactivity:	Human and Rat. Expected to show a broad species reactivity.
Positive Control:	Normal pituitary gland or pituitary tumor.
Cellular Localization:	Cytoplasmic
Titer/ Working Dilution:	Immunohistochemistry (Frozen and Formalin-fixed): 0.5-1 µg/ml Flow Cytometry: 0.5-1 µg/million cells Immunofluorescence: 0.5-1 µg/ml Western Blotting: 0.5-1 µg/ml Immunoprecipitation: 0.5-1 µg/500µg protein lysate
Microbiological State:	This product is not sterile.

Storage: 2° C – 8° C

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Uses/Limitations:

Not to be taken internally.
For Research Use Only.
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Do not use if reagent becomes cloudy.
Do not use past expiration date.
Non-Sterile.

Ordering Information and Current Pricing at www.scytek.com

Procedure:

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with Citrate Plus (ScyTek catalog# CPL500).

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).
Do not pipette by mouth.
Avoid contact of reagents and specimens with skin and mucous membranes.
Avoid microbial contamination of reagents or increased nonspecific staining may occur.
This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.

References:

1. Hsu DW *et. al.* American Journal of Pathology, 1991, 138(4):897-909.

Warranty:

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used.

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