

ACTH Recombinant Monoclonal Mouse Antibody (rCLIP/1407)



Product Description

ACTH (same as Corticotropin) is a 39 amino acid active peptide produced by the anterior pituitary. This MAb is specific to CLIP (aa25-39 of ACTH); does not react with Synacthen (aa1-24 of ACTH). 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 immune system (T-cells, B-cells, and macrophages) in response to stimuli associated with stress. Anti-ACTH is a useful marker in classification of pituitary tumors and 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.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 2296, Anti-ACTH (rCLIP/1407)

Call us : 800-304-5357 Email: <u>btinfo@biotium.com</u> Product attributes

Antibody reactivity (target)	ACTH
Antibody number	#2296
research-areas	Cancer, Endocrinology
Antibody type	Primary
Host species	Mouse
Clonality	Recombinant Monoclonal
Clone	rCLIP/1407
Isotype	lgG1
Molecular weight	ACTH is ~5 kDa, and the POMC precursor is ~30 kDa. The molecular weight of POMC depends upon isoform variation and post-translational modifications.
Synonyms	Pro-opiomelanocortin (POMC); Adrenocorticotropin; Adrenocorticotropic hormone; Melanocyte Stimulating Hormone (MSH); Melanotropin; beta-Endorphin; Lipotropin; Met-Enkephalin; POC
Entrez gene ID	5443
SwissProt	P01189
Human gene symbol	POMC
Unigene	1897
Immunogen	Synthetic peptide corresponding to (aa 162-176) of human ACTH (NGAEDESAEAFPLEF)
Species reactivity	Broad reactivity, Human, Mouse, Rat
Verified antibody applications	IHC (FFPE) (verified)
Antibody target cellular localization	Secreted (extracellular), Vesicular
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunohistology (formalin): 0.5-1 ug/mL for 30 minutes at RT, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes followed by cooling at RT for 20 minutes, Optimal dilution for a specific application should be determined by user
Positive control	Normal pituitary gland or pituitary tumor
Storage Conditions	Store at 2 to 8 $^{\circ}$ C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 $^{\circ}$ C
Shipping condition	Room temperature
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Cancer, Endocrinology
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.
Tumor expression	Pituitary cancer

Antibody # prefix Ex/Em (nm) Laser line **Detection channel Dye Features** Conjugation BNC04 CF®405S 404/431 405 DAPI (microscopy), **CF®405S** Features AF405 BNC88 CF®488A 490/515 GFP, FITC CF®488A Features 488 RFP, TRITC BNC68 CF®568 562/583 532, 561 CF®568 Features BNC94 CF®594 593/614 561 Texas Red® CF®594 Features BNC40 CF®640R 642/662 633-640 Cy®5 CF®640R Features BNC47 CF®647 650/665 633-640 Cy®5 CF®647 Features CF®740 742/767 633-685 775/50 BNC74 CF®740 Features BNCB Biotin N/A N/A N/A BNUB Purified N/A N/A N/A BNUM Purified, N/A N/A N/A **BSA-free**

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