10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ACTHR Rabbit pAb

Catalog # AP99336

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q01718
Other Accession	Q01718
Predicted	Rat, Human, Mouse, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	33927
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MC2 receptor
Epitope Specificity	67-105/297
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family.
SUBUNIT	Interacts with FALP/MRAP.
DISEASE	Defects in MC2R are the cause of glucocorticoid deficiency type 1 (GCCD1) [MIM:202200]; also known as familial glucocorticoid deficiency type 1 (FGD1). GCCD1 is an autosomal recessive disorder due to congenital insensitivity or resistance to adrenocorticotropin (ACTH). It is characterized by progressive primary adrenal insufficiency, without mineralocorticoid deficiency.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	MC2R encodes one member of the five-member G-protein associated melanocortin receptor family. Melanocortins (melanocyte-stimulating hormones and adrenocorticotropic hormone) are peptides derived from pro-opiomelanocortin (POMC). MC2R is selectively activated by adrenocorticotropic hormone, whereas the other four melanocortin receptors recognize a variety of melanocortin ligands. Mutations in MC2R can result in familial glucocorticoid deficiency.

Additional Information

Gene ID	4158
Other Names	ACTHR; ACTH-R; MC2-R; ACTHR_HUMAN; MC2R; ACTH receptor; Adrenocorticotropin receptor; Melanocortin receptor 2 (MC2-R); ACTHR_MOUSE; melanocortin 2 receptor; melanocortin 2 receptor (adrenocorticotropic hormone); adrenocorticotropic hormone receptor
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	MC2R (HGNC:6930)
Synonyms	ACTHR
Function	G protein-coupled receptor for corticotropin/ACTH, primarily expressed in adrenal cortex where it plays a key role in the regulation of adrenocortical function (PubMed:1325670, PubMed:17596328, PubMed:36588120). Upon activation, couples to G(s) protein, stimulating adenylate cyclase and activating the cAMP-dependent signaling pathway, the MAPK cascade as well as the PKA pathway, leading to steroidogenic factor 1/NR5A1-mediated transcriptional activation (PubMed:1325670). Activation by ACTH facilitates the release of adrenal glucocorticoids, including cortisol and corticosterone (PubMed:12213892, PubMed:8636348). In addition, MC2R is required for fetal and neonatal adrenal gland development (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Melanocytes and corticoadrenal tissue.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.