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CRFR2 Antibody (D35)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11442a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q13324
Other Accession	NP_001874.2
Reactivity	Human
Predicted	Mouse, Rat, Rabbit, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB08932
Calculated MW	47688
Antigen Region	10-39

Additional Information

Gene ID	1395
Other Names	Corticotropin-releasing factor receptor 2, CRF-R-2, CRF-R2, CRFR-2, Corticotropin-releasing hormone receptor 2, CRH-R-2, CRH-R2, CRHR2, CRF2R, CRH2R
Target/Specificity	This CRFR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 10-39 amino acids from human CRFR2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CRFR2 Antibody (D35) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CRHR2 (HGNC:2358)
Synonyms	CRF2R, CRH2R

Function	G protein-coupled receptor for CRH, UCN, UCN2 and UCN3 stress hormones, which plays a central role in whole body adaptation to stress (PubMed:11329063, PubMed:11416224, PubMed:20966082, PubMed:22689579, PubMed:32004470, PubMed:36335102). Has highest affinity for UCN, and much lower affinity for CRH, UNC2 and UCN3 (PubMed:20966082, PubMed:22689579, PubMed:32004470, PubMed:36335102). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and downstream effectors, such as adenylate cyclase (PubMed:32004470, PubMed:36335102). CRHR2 is coupled to G(s) G protein (GNAS), mediating activation of adenylate cyclase activity and production of cAMP (PubMed:32004470, PubMed:36335102). CRHR2-dependent signaling is a primary mediator of the neuroendocrine, autonomic (fight-or-flight) and behavioral responses to stress, acting as a key regulator of adaptation by activating the hypothalamus-pituitary-adrenal axis, leading to corticotropin hormone (ACTH) production (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein

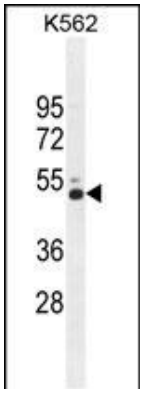
Background

Liaw et al. (1996) [PubMed 8536644] stated that there are 2 G protein-coupled corticotropin-releasing hormone (CRH; MIM 122560) receptors, CRHR1 (MIM 122561) and CRHR2, which they termed the CRF2 receptor. CRH is a 41-amino acid peptide synthesized in the hypothalamus that is the principal neuroregulator of the hypothalamic-pituitary-adrenocortical axis and plays an important role in coordinating the endocrine, autonomic, and behavioral responses to stress and immune challenge.

References

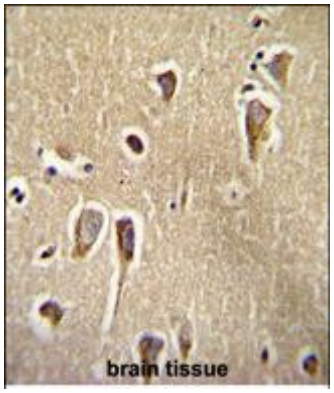
Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) :
Gutknecht, E., et al. Eur. J. Pharmacol. 642 (1-3), 1-9 (2010) :
Ruano, G., et al. Pharmacogenomics 11(7):959-971(2010)
Pinheiro, A.P., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B (5), 1070-1080 (2010) :
Joubert, B.R., et al. Genome Med 2 (3), 17 (2010) :

Images

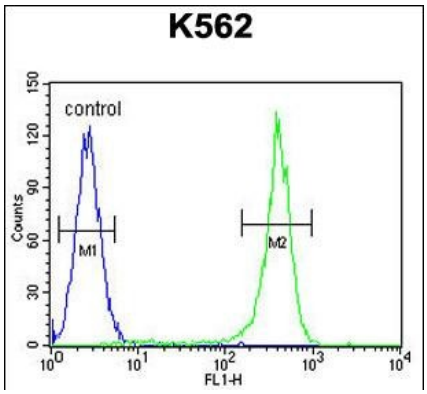


CRFR2 Antibody (D35) (Cat. #AP11442a) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the CRFR2 antibody detected the CRFR2 protein (arrow).

CRFR2 Antibody (D35)(Cat. #AP11442a)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CRFR2 Antibody (D35) for immunohistochemistry.



Clinical relevance has not been evaluated.



CRFR2 Antibody (D35) (Cat. #AP11442a) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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