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CRFR1 Antibody (Q103)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11441a

Product Information

Application	WB, FC, E
Primary Accession	P34998
Other Accession	P35353, NP_001138618.1, NP_004373.2
Reactivity	Human, Rat
Predicted	Rat, Mouse, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB08910
Calculated MW	47671
Antigen Region	88-119

Additional Information

Gene ID	1394
Other Names	Corticotropin-releasing factor receptor 1, CRF-R-1, CRF-R1, CRFR-1, Corticotropin-releasing hormone receptor 1, CRH-R-1, CRH-R1, CRHR1, CRFR, CRFR1, CRHR
Target/Specificity	This CRFR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 88-119 amino acids from human CRFR1.
Dilution	WB~~1:2000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. 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	CRFR1 Antibody (Q103) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CRHR1 (HGNC:2357)
Function	G protein-coupled receptor for CRH and UCN stress hormones, which plays

	a central role in whole body adaptation to stress (PubMed:18292205, PubMed:18801728, PubMed:20966082, PubMed:23576434, PubMed:23863939, PubMed:24290358, PubMed:32004469, PubMed:32004470). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and downstream effectors, such as adenylate cyclase (PubMed:18292205, PubMed:32004469, PubMed:32004470). CRHR1 is mainly coupled to G(s) G protein (GNAS), mediating activation of adenylate cyclase activity and production of cAMP (PubMed:18292205, PubMed:32004469, PubMed:32004470). In some conditions, can also couple to G(q) G protein (GNAQ) and mediate production of diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) second messengers (PubMed:14657255). CRHR1-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). Mediates both anxiogenic and anxiolytic response to stress in glutamatergic and dopaminergic neurons, respectively (By similarity). CRHR1 also plays a critical role in addiction by mediating the brain's stress response, particularly during withdrawal and relapse: it drives the transition to compulsive drug seeking by increasing anxiety and negative emotional states (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Note=Agonist-binding promotes endocytosis.
Tissue Location	Predominantly expressed in the cerebellum, pituitary, cerebral cortex and olfactory lobe

Background

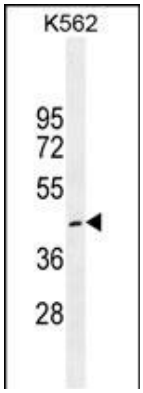
This gene encodes a G-protein coupled receptor that binds neuropeptides of the corticotropin releasing hormone family that are major regulators of the hypothalamic-pituitary-adrenal pathway. The encoded protein is essential for the activation of signal transduction pathways that regulate diverse physiological processes including stress, reproduction, immune response and obesity. Alternative splicing results in multiple transcript variants.

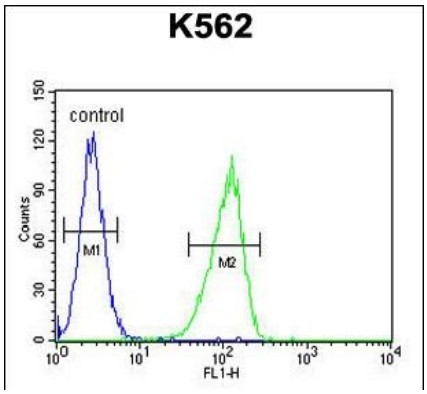
References

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Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) :
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Ruano, G., et al. Pharmacogenomics 11(7):959-971(2010)
Hillhouse, E.W., et al. Endocr. Rev. 27(3):260-286(2006)

Images

CRFR1 Antibody (Q103) (Cat. #AP11441a) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the CRFR1 antibody detected the CRFR1 protein (arrow).





CRFR1 Antibody (Q103) (Cat. #AP11441a) 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'.