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PRKAR2B Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14960c

Product Information

Application	WB, E
Primary Accession	P31323
Other Accession	P12369, P31324, P31322, NP_002727.2
Reactivity	Human
Predicted	Bovine, Mouse, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34541
Calculated MW	46302
Antigen Region	119-147

Additional Information

Gene ID	5577
Other Names	cAMP-dependent protein kinase type II-beta regulatory subunit, PRKAR2B
Target/Specificity	This PRKAR2B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 119-147 amino acids from the Central region of human PRKAR2B.
Dilution	WB~~1:1000 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	PRKAR2B Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRKAR2B
Function	Regulatory subunit of the cAMP-dependent protein kinases involved in cAMP signaling in cells. Type II regulatory chains mediate membrane association by binding to anchoring proteins, including the MAP2 kinase.

Cellular Location	Cytoplasm. Cell membrane. Note=Colocalizes with PJA2 in the cytoplasm and at the cell membrane
Tissue Location	Four types of regulatory chains are found: I-alpha, I-beta, II-alpha, and II-beta. Their expression varies among tissues and is in some cases constitutive and in others inducible

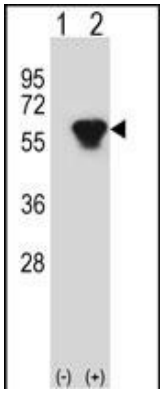
Background

cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the cAMP-dependent protein kinase, which transduces the signal through phosphorylation of different target proteins. The inactive kinase holoenzyme is a tetramer composed of two regulatory and two catalytic subunits. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. The protein encoded by this gene is one of the regulatory subunits. This subunit can be phosphorylated by the activated catalytic subunit. This subunit has been shown to interact with and suppress the transcriptional activity of the cAMP responsive element binding protein 1 (CREB1) in activated T cells. Knockout studies in mice suggest that this subunit may play an important role in regulating energy balance and adiposity. The studies also suggest that this subunit may mediate the gene induction and cataleptic behavior induced by haloperidol. [provided by RefSeq].

References

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Adkins, D.E., et al. Mol. Psychiatry (2010) In press :
Islam, A., et al. J. Biol. Chem. 283(37):25364-25371(2008)
Ji, Z., et al. J. Biol. Chem. 283(32):21920-21925(2008)
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Images



Western blot analysis of PRKAR2B (arrow) using rabbit polyclonal PRKAR2B Antibody (Center) (Cat. #AP14960c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PRKAR2B gene.

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