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AD_K2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7005a

Product Information

Application	WB, E
Primary Accession	P35626
Reactivity	Human, Monkey, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	79710
Antigen Region	633-660

Additional Information

Gene ID	157
Other Names	Beta-adrenergic receptor kinase 2, Beta-ARK-2, G-protein-coupled receptor kinase 3, ADRBK2, BARK2, GRK3
Target/Specificity	This AD_K2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 633-660 amino acids from the C-terminal region of human AD_K2.
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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	AD_K2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GRK3 (HGNC:290)
Function	Specifically phosphorylates the activated forms of G protein- coupled receptors (PubMed:21799898, PubMed:33859231). Such receptor phosphorylation initiates beta-arrestin-mediated receptor internalization, and signaling events leading to their desensitization (PubMed:21799898, PubMed:33859231). Phosphorylates the agonist-occupied form of the

	beta-adrenergic and closely related receptors (By similarity). Also phosphorylates ligand-bound C3a and C5a anaphylatoxin receptors (C3AR1 and C5AR1, respectively), leading to receptor desensitization (PubMed:21799898). Positively regulates ciliary smoothened (SMO) signaling pathway by mediating phosphorylation of SMO, facilitating SMO trafficking into the cilium and the stimulation of SMO activity (By similarity).
Cellular Location	Postsynapse {ECO:0000250|UniProtKB:P26819}. Presynapse {ECO:0000250|UniProtKB:P26819}

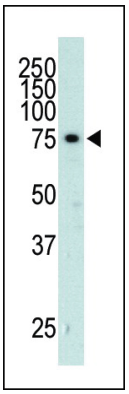
Background

The beta-adrenergic receptor kinase specifically phosphorylates the agonist-occupied form of the beta-adrenergic and related G protein-coupled receptors. Overall, the ADRBK2 enzyme, also known as GRK3, has 85% amino acid similarity with ADRBK1, with the protein kinase catalytic domain having 95% similarity. The ADRBK2 mRNA is approximately 8 kilobases with a distribution similar to that of ADRBK1. These data suggest the existence of a family of receptor kinases which may serve broadly to regulate receptor function.

References

Calabrese, G., et al., Genomics 23(1):286-288 (1994). Parruti, G., et al., Biochem. Biophys. Res. Commun. 190(2):475-481 (1993). Benovic, J.L., et al., J. Biol. Chem. 266(23):14939-14946 (1991).

Images



The anti-GRK3 Pab (Cat. #AP7005a) is used in Western blot to detect GRK3 in mouse heart tissue lysate.

Citations

- Decreased GRK3 but not GRK2 expression in frontal cortex from bipolar disorder patients.
- G Protein Coupled Receptor Kinase 3 Regulates Breast Cancer Migration, Invasion, and Metastasis.

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