Datasheet for ABIN968072

anti-PRKAR2B antibody (AA 1-418)

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Overview

Quantity:	50 µg
Target:	PRKAR2B
Binding Specificity:	AA 1-418
Reactivity:	Human, Mouse, Rat, Chicken, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This PRKAR2B antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Human PKA RIIbeta, aa 1-418
Clone:	45
Isotype:	IgG1
Cross-Reactivity:	Chicken, Dog (Canine), Mouse (Murine), Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	PRKAR2B
Alternative Name:	PKA RIIbeta (PRKAR2B Products)
Background:	CAMP-dependent Protein Kinase (PKA) is composed of two distinct subunits: catalytic (C) and regulatory (R). Four regulatory subunits have been identified: RIalpha, RIß, RIIalpha, and RIIß.These subunits define type I and II cAMP-dependent protein kinases. Following binding of cAMP, the regulatory subunits dissociate from the catalytic subunits, rendering the enzyme active. Type I and type II holoenzymes have three potential C subunits (Calpha, Cß, or Cgamma). Type II PKA can be distinguished by autophosphorylation of the R-subunits, while type I PKA binds Mg/ATP with high affinity. Most cells express both type I and type II PKAs. Although the Ralpha isoforms are ubiquitously expressed, the Rß isoforms are predominant in nervous and adipose tissues. There are indications that the deletion of the gene for PKA RIIß results in lack of long-term potentiation in a select group of hippocampal cells, suggesting an important role for this protein in the neurosciences.
Molecular Weight:	53 kDa
Pathways:	Hedgehog Signaling, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Myometrial Relaxation and Contraction, M Phase, G-protein mediated Events, Interaction of EGFR with phospholipase C-gamma, SARS-CoV-2 Protein Interactome, The Global Phosphorylation Landscape of SARS-CoV-2 Infection

Application Details

Application Notes:	Methanol Procedure for a 96 well plate: Remove media from wells. Add 100 µl/well fresh 3.7% Formaldehyde in PBS. Incubate for 10 minutes at room temperature (RT). Flick out and add 100 µl/well 90% methanol. Incubate for 5 minutes at RT. Flick out and wash twice with PBS. Flick out PBS and add 100 µl/well blocking buffer (3% FBS in PBS). Incubate for 30 minutes at RT. Flick out and add diluted antibody (diluted in blocking buffer). Incubate for 1 hour at RT. Wash three times with PBS. Flick out PBS and add second step reagent. Incubate for 1 hour at RT. Wash three times with PBS. Triton-X 100 Procedure for a 96 well plate: Remove media from wells. Add 100 µl/well fresh 3.7% Formaldehyde in PBS. Incubate for 10 minutes at room temperature (RT). Flick out and

Application Details

	add 100 µl/well 0.1% Triton-X 100. Incubate for 5 minutes at RT. Flick out and wash twice with PBS. Flick out PBS and add 100 µl/well blocking buffer (3% FBS in PBS). Incubate for 30 minutes at RT. Flick out and add diluted antibody (diluted in blocking buffer). Incubate for 1 hour at RT. Flick out and wash three times with PBS. Flick out and add second step reagent. Incubate for 1 hour at RT. Flick out and wash three times with PBS.
Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:	Kranz, Dorgau, Pottek, Herrling, Schultz, Bolte, Monyer, Penuela, Laird, Dedek, Weiler, Janssen-Bienhold: "Expression of Pannexin1 in the outer plexiform layer of the mouse retina and physiological impact of its knockout." in: **The Journal of comparative neurology**, Vol. 521, Issue 5, pp. 1119-35, (2013) (PubMed). Puller, Ondreka, Haverkamp: "Bipolar cells of the ground squirrel retina." in: **The Journal of comparative neurology**, Vol. 519, Issue 4, pp. 759-74, (2011) (PubMed). Hilgen, von Maltzahn, Willecke, Weiler, Dedek: "Subcellular distribution of connexin45 in OFF bipolar cells of the mouse retina." in: **The Journal of comparative neurology**, Vol. 519, Issue 3, pp. 433-50, (2011) (PubMed). Haverkamp, Specht, Majumdar, Zaidi, Brandstätter, Wasco, Wässle, Tom Dieck: "Type 4 OFF

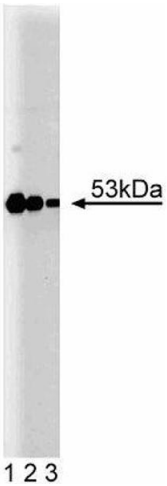
Publications

cone bipolar cells of the mouse retina express calsenilin and contact cones as well as rods." in: **The Journal of comparative neurology**, Vol. 507, Issue 1, pp. 1087-101, (2008) (PubMed).

Mataruga, Kremmer, Müller: "Type 3a and type 3b OFF cone bipolar cells provide for the alternative rod pathway in the mouse retina." in: **The Journal of comparative neurology**, Vol. 502, Issue 6, pp. 1123-37, (2007) (PubMed).

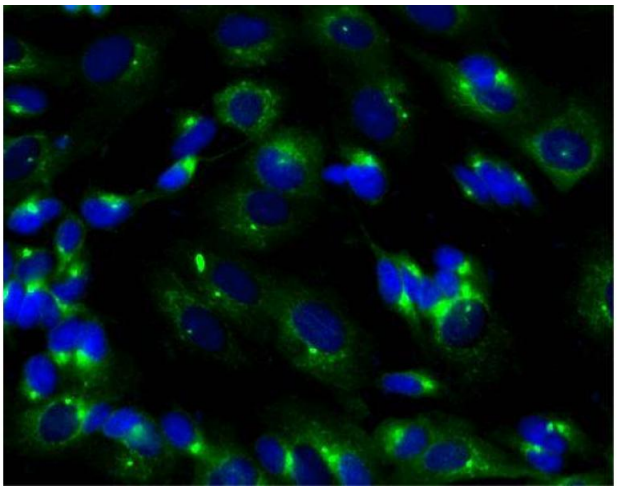
There are more publications referencing this product on: Product page

Images



Western Blotting

Image 1. Western blot analysis of PKA RIIbeta on human endothelial lysate (left). Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of PKA RIIbeta.



Immunofluorescence

Image 2. Immunofluorescent staining of SK-N-SH cells (right). Cells were seeded in a 384 well collagen coated Microplates at ~ 8,000 cells per well. After overnight incubation, cells were stained using the Triton X100 fix/perm protocol and the anti- PKARIIb antibody. The second step reagent was Alexa Fluor® 488 goat anti mouse Ig (Invitrogen). The image was taken on a Pathway 855 or 435 imager using a 20x objective. This antibody also stained SH-SY5Y and C6 cells using both the Triton X100 and methanol fix/perm protocols.