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antibody and ELISA experts

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Anti-PRKACA Antibody (Monoclonal, 33P21)

Catalog Number: M00653-2

About PRKACA

This gene encodes one of the catalytic subunits of protein kinase A, which exists as a tetrameric holoenzyme with two regulatory subunits and two catalytic subunits, in its inactive form. 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. cAMP-dependent phosphorylation of proteins by protein kinase A is important to many cellular processes, including differentiation, proliferation, and apoptosis. Constitutive activation of this gene caused either by somatic mutations, or genomic duplications of regions that include this gene, have been associated with hyperplasias and adenomas of the adrenal cortex and are linked to corticotropin-independent Cushing's syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms. Tissue-specific isoforms that differ at the N-terminus have been described, and these isoforms may differ in the post-translational modifications that occur at the N-terminus of some isoforms.

Overview

Product Name	Anti-PRKACA Antibody (Monoclonal, 33P21)
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-PRKACA Antibody (Monoclonal, 33P21) catalog # M00653-2. Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat, Monkey.
Application	Flow Cytometry, IP, IF, IHC, ICC, WB
Clonality	Monoclonal 33P21
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P17612

Technical Details

Immunogen	Recombinant protein within human PKA C-alpha aa 3-349.
Form	Liquid
Concentration	500 ug/ml

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Purification	Protein A affinity purified.
Suggested Dilutions	Western blot, 1:500-2000 Immunohistochemistry, 1:50-200 Immunocytochemistry/Immunofluorescence, 1:50-200 ImmunoPrecipitation, 1:50 Flow Cytometry (Fixed), 1:50-200

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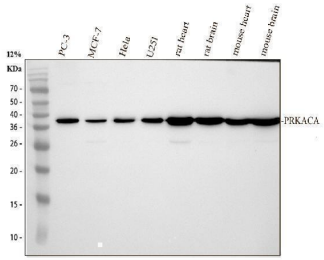
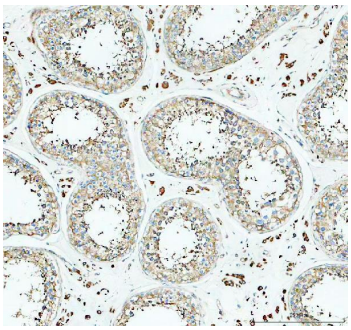
Anti-PRKACA Antibody (Monoclonal, 33P21) (M00653-2) Images



Western blot analysis of PRKACA using anti-PRKACA antibody (M00653-2). Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human PC-3 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human U251 whole cell lysates, Lane 5: rat heart tissue lysates, Lane 6: rat brain tissue lysates, Lane 7: mouse heart tissue lysates, Lane 8: mouse brain tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PRKACA antigen affinity purified monoclonal antibody (M00653-2) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for PRKACA at approximately 38 kDa. The expected band size for PRKACA is at 41 kDa.



IHC analysis of PRKACA using anti-PRKACA antibody (M00653-2). PRKACA was detected in a paraffin-embedded section of human testis cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:200 rabbit anti-PRKACA Antibody (M00653-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Anti-PRKACA Antibody (Monoclonal, 33P21)

For Research Use Only. Not for use in diagnostic procedures.