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PRKAR2A Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant PRKAR2A.
Catalog # AT3430a

Specification

PRKAR2A Antibody (monoclonal) (M01) - Product Information

Application	**WB, IHC, IF, E**
Primary Accession	P13861
Other Accession	BC002763
Reactivity	**Human**
Host	**mouse**
Clonality	**Monoclonal**
Isotype	**IgG1 Kappa**
Calculated MW	**45518**

PRKAR2A Antibody (monoclonal) (M01) - Additional Information

Gene ID 5576

Other Names
cAMP-dependent protein kinase type II-alpha regulatory subunit, PRKAR2A, PKR2, PRKAR2

Target/Specificity
PRKAR2A (AAH02763, 1 a.a. ~ 105 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

Dilution
WB~~1:500~1000
IHC~~1:100~500
IF~~1:50~200
E~~N/A

Format
Clear, colorless solution in phosphate buffered saline, pH 7.2 .

Storage
Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Precautions
PRKAR2A Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

PRKAR2A Antibody (monoclonal) (M01) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot

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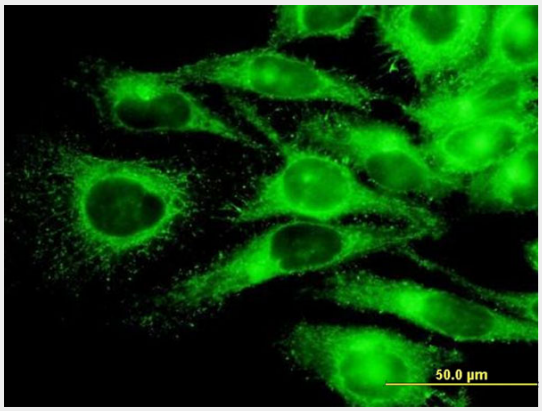
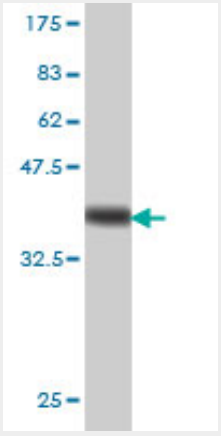
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

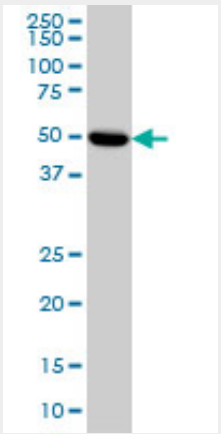
PRKAR2A Antibody (monoclonal) (M01) - Images



Immunofluorescence of monoclonal antibody to PRKAR2A on HeLa cell . [antibody concentration 10 ug/ml]



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (37.18 KDa) .



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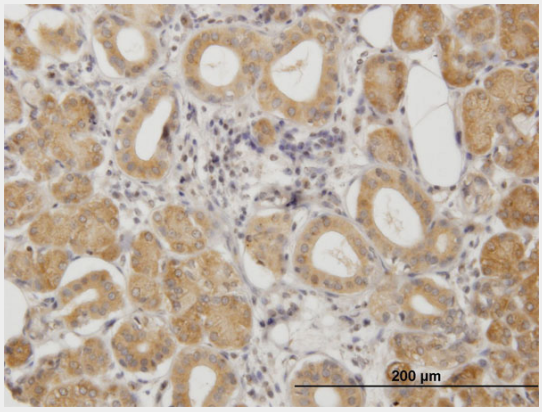
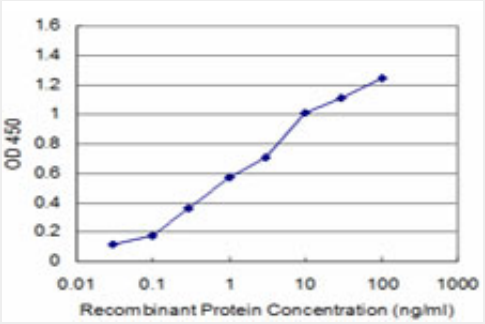
PRKAR2A monoclonal antibody (M01), clone 6A9 Western Blot analysis of PRKAR2A expression in HeLa ((Cat # AT3430a)



Immunoperoxidase of monoclonal antibody to PRKAR2A on formalin-fixed paraffin-embedded human salivary gland. [antibody concentration 3 ug/ml]



Detection limit for recombinant GST tagged PRKAR2A is approximately 0.03ng/ml as a capture antibody.

PRKAR2A Antibody (monoclonal) (M01) - 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. It may interact with various A-kinase anchoring proteins and determine the subcellular localization of cAMP-dependent protein kinase. This subunit has been shown to regulate protein transport from endosomes to the Golgi apparatus and further to the endoplasmic reticulum (ER).

PRKAR2A Antibody (monoclonal) (M01) - References

Biological Pathway-Based Genome-Wide Association Analysis Identified the Vasoactive Intestinal Peptide (VIP) Pathway Important for Obesity. Liu YJ, et al. Obesity (Silver Spring), 2010 Apr 8. PMID 20379146.Identification of neuroglycan C and interacting partners as potential susceptibility genes for schizophrenia in a Southern Chinese population. So HC, et al. Am J Med Genet B Neuropsychiatr Genet, 2010 Jan 5. PMID 19367581.Bacillus anthracis edema toxin suppresses human macrophage phagocytosis and cytoskeletal remodeling via the protein kinase A and exchange protein activated by cyclic AMP pathways. Yeager LA, et al. Infect Immun, 2009 Jun. PMID 19307216.Isoform-specific PKA dynamics revealed by dye-triggered aggregation and DAKAP1alpha-mediated localization in

living cells. Martin BR, et al. Chem Biol, 2007 Sep. PMID 17884635.Anchoring of protein kinase A-regulatory subunit IIalpha to subapically positioned centrosomes mediates apical bile canalicular lumen development in response to oncostatin M but not cAMP. Wojtal KA, et al. Mol Biol Cell, 2007 Jul. PMID 17494870.