

Datasheet: VMA00270KT

Description:	PRKAR1A ANTIBODY WITH CONTROL LYSATE
Specificity:	PRKAR1A
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	OTI6C7
Isotype:	IgG1
Quantity:	2 Westerns

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	▪			1/1000

PrecisionAb antibodies have been extensively [validated for the western blot application](#). The antibody has been validated at the suggested dilution. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependant on sample type.

Target Species

Human

Species Cross Reactivity

Reacts with: Mouse, Rat

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Preparation

20µl Mouse monoclonal antibody purified by affinity chromatography from ascites

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide (NaN₃)
1% Bovine Serum Albumin

50% Glycerol

Immunogen Full-length protein expressed in 293T cell transfected with human PRKAR1A expression vector

External Database Links

UniProt:

[P10644](#) [Related reagents](#)

Entrez Gene:

[5573](#) PRKAR1A [Related reagents](#)

Synonyms PKR1, PRKAR1, TSE1

Specificity **Mouse anti Human PRKAR1A antibody** recognizes the cAMP-dependent protein kinase type I-alpha regulatory subunit, also known as Carney complex type 1, cAMP-dependent protein kinase regulatory subunit RIalpha, cAMP-dependent protein kinase type I-alpha regulatory chain, cAMP-dependent protein kinase type I-alpha regulatory subunit, protein kinase A type 1a regulatory subunit and tissue-specific extinguisher 1.

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. PRKAR1A encodes one of the regulatory subunits. This protein was found to be a tissue-specific extinguisher that down-regulates the expression of seven liver genes in hepatoma x fibroblast hybrids. Mutations in PRKAR1A gene cause Carney complex (CNC). PRKAR1A can fuse to the RET protooncogene by gene rearrangement and form the thyroid tumor-specific chimeric oncogene known as PTC2. A nonconventional nuclear localization sequence (NLS) has been found for this protein which suggests a role in DNA replication via the protein serving as a nuclear transport protein for the second subunit of the Replication Factor C (RFC40). Several alternatively spliced transcript variants encoding two different isoforms have been observed (provided by RefSeq, Jan 2013).

Mouse anti Human PRKAR1A antibody detects a band of 43 kDa. The antibody has been extensively validated for western blotting using whole cell lysates.

Western Blotting Anti PRKAR1A detects a band of approximately 43 kDa in Jurkat cell lysates

Instructions For Use Please refer to the [PrecisionAb western blotting protocol](#). For additional information on secondary antibody dilution and exposure time see product web page.

Lysate Composition 400µg Jurkat lysate lyophilized in RIPA buffer.

Lysate Reconstitution - If using DDT reconstitute the lyophilized lysate with 190µl DI H₂O, add 200µl 2x Laemmli

Sample Buffer and 10µl 2M DTT.

- If using BME reconstitute the lyophilized lysate with 180µl DI H₂O, add 200µl 2x Laemmli Sample Buffer and 20µl BME.

Heat at 95°C for 5 minutes. For 10 well mini gels load 25µl. For other gel and comb formats please refer to the PrecisionAb western blotting protocol.

Storage	Antibody: Store undiluted at -20°C, avoiding repeated freeze thaw cycles. Lysate: Store lyophilized lysate at -20°C. After reconstitution aliquot and store at -20°C for up to 3 months or at -80°C for longer term storage.
Guarantee	As supplied, 12 months from date of despatch.
Acknowledgements	PrecisionAb™ is a trademark of Bio-Rad Laboratories.
Health And Safety Information	Material Safety Datasheet documentation #10048 #10561 available at: Antibody (10048): https://www.bio-rad-antibodies.com/uploads/MSDS/10048.pdf Lysate Material (10561): https://www.bio-rad-antibodies.com/uploads/MSDS/10561.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR207...) [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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