

Datasheet: VMA00924

Description:	MOUSE ANTI PRKAB1
Specificity:	PRKAB1
Format:	Purified
Product Type:	PrecisionAb Monoclonal
Clone:	K02/3D4
Isotype:	IgG1
Quantity:	100 µl

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	■			1/2000

The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click [here](#) to learn how we validate our PrecisionAb range. 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 dependent on sample type.

Target Species	Human
Species Cross Reactivity	<p>Reacts with: Mouse, Rat</p> <p>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.</p>
Product Form	Purified IgG - Liquid
Preparation	Mouse monoclonal antibody affinity purified on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	<i>E. coli</i> -derived recombinant protein of amino acids 1-270 of human PRKAB1
External Database Links	<p>UniProt: Q9Y478 Related reagents</p> <p>Entrez Gene: 5564 PRKAB1 Related reagents</p>
Synonyms	AMPK
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line
Specificity	<p>Mouse anti PRKAB1 antibody recognizes 5'-AMP-activated protein kinase subunit beta-1, also known as AMPKb.</p> <p>AMPK is a serine/threonine protein kinase complex which acts as a sensor of adenine nucleotides, and is activated by low cellular energy. Under these conditions AMPK activates catabolic pathways that generate ATP and deactivates anabolic pathways that consume ATP, restoring energy balance (Lin et al. 2017). Conditions that deplete cellular energy levels include nutrient starvation, hypoxia, and exposure to toxins, inhibiting the mitochondrial respiratory chain and activating AMPK. Activators and inhibitors of AMPK have been suggested as important tools for controlling human diseases including metabolic syndrome and cancer (Kim et al. 2016). In mice, AMPK appears to act as a tumor suppressor and a tumor promoter in different contexts. Prior to cancer development it can act as a suppressor, but switches to being a tumor promoter once cancer has occurred, favoring survival of cancer cells (Vara-Ciruelos et al. 2019).</p>
Western Blotting	Mouse anti PRKAB1 detects a band of approximately 36 kDa in C6 cell lysates
Storage	Store undiluted at -20°C, avoiding repeated freeze thaw cycles
Guarantee	12 months from date of despatch
Acknowledgements	PrecisionAb is a trademark of Bio-Rad Laboratories
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/VMA00924 Antibody (10040)
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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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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