

## Datasheet: MCA6327

<b>Description:</b>	RABBIT ANTI AMPK ALPHA 1
<b>Specificity:</b>	AMPK ALPHA 1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RM301
<b>Isotype:</b>	IgG
<b>Quantity:</b>	0.1 ml

## 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Paraffin	▪			1/100 - 1/200
Western Blotting	▪			1/100 - 1/200

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography of Protein A from animal origin-free culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% Sodium Azide
<b>Stabilisers</b>	1% Bovine Serum Albumin 50% Glycerol
<b>Immunogen</b>	A peptide corresponding to the residues near the C-terminus of Human AMPK alpha 1
<b>External Database Links</b>	<b>UniProt:</b>

**Entrez Gene:**

[5562](#)   PRKAA1   [Related reagents](#)

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<b>Synonyms</b>	AMPK1
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<b>Specificity</b>	<p><b>Rabbit anti Human AMPK alpha 1 antibody</b> recognizes 5'-AMP-activated protein kinase catalytic subunit alpha-1, also known as PRKAA1, AMPK1. AMPK is a highly conserved heterotrimeric protein kinase found in all eukaryotes. The heterotrimeric complex exists as multiple isoforms and consists of a catalytic alpha subunit (alpha 1 and alpha 2), which is stabilized by non-catalytic regulatory beta- and gamma- subunits (<a href="#">Yan et al. 2018</a>). AMPK responds to changes in intracellular adenine nucleotide levels, regulating cellular energy balance. AMPK is activated by an increase in AMP/ADP relative to ATP, and leads to an increase in rate of catabolic (ATP-generating) pathways and decreases rate of anabolic (ATP-utilizing) pathways (<a href="#">Carling et al. 2017</a>). This results in maintenance of cellular energy homeostasis under conditions of hypoxia, low glucose levels, oxidative stress. Evidence suggests that AMPK acts as a tumor suppressor and has been suggested as a target for therapy, opposing tumor progression in several cancer types in part by regulating metabolism and inflammation (<a href="#">Li et al. 2015</a>).</p>
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<b>Storage</b>	<p>Store at -20°C only. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use</p>
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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10048 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA6327">https://www.bio-rad-antibodies.com/SDS/MCA6327</a> 10048</p>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

- Sheep Anti Rabbit IgG (STAR34...)   [FITC](#)
- Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
- Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
- Sheep Anti Rabbit IgG (STAR35...)   [RPE](#)
- Sheep Anti Rabbit IgG (STAR36...)   [DyLight®488](#), [DyLight®680](#), [DyLight®800](#)

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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](https://www.bio-rad-antibodies.com/datasheets)  
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