

Datasheet: MCA2865

Description:	MOUSE ANTI RICIN A CHAIN
Specificity:	RICIN A CHAIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	RA999
Isotype:	IgG1
Quantity:	0.2 mg

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
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			
Immunofluorescence			▪	
Functional Assays			▪	

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.

Target Species	Plants
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from ascites
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)
Approx. Protein	IgG concentration 1.0mg/ml

Concentrations

Immunogen Full length Ricin A (RCA₆₀) from *Ricinus communis*.

External Database Links

UniProt:

[P02879](#) [Related reagents](#)

Entrez Gene:

[8287993](#) RCOM_2159910 [Related reagents](#)

RRID AB_10672888

Specificity

Mouse anti Ricin A Chain antibody, clone RA999 recognizes the A chain of the ricin toxin (RCA₆₀), a 60kDa glycoprotein. Mouse anti Ricin A Chain antibody, clone RA999 also cross-reacts with RCA₁₂₀.

The ricin toxin consists of two chains, A and B, covalently linked by a disulfide bond. The A chain acts as a glycosidase that removes an adenine residue from the 28S rRNA. The area from which the adenine is removed is essential for binding of elongation factors, destroying it leaves the ribosome inactive and unable to support protein synthesis. The A chain can inactivate a few thousand ribosomes per minute, much faster than the cell can replace them, meaning that a single ricin A chain can kill a cell.

The B chain binds to complex carbohydrates on the cell surface to facilitate entry of the A chain into the cell. Without the B chain, the A chain has very low toxicity. Ricin is easily extracted from the castor bean (*Ricinus communis*), and the lethal dose for humans is very small. It is toxic when inhaled, ingested or injected and there is no known antidote, although a vaccine has been developed. Treatment is symptomatic and supportive, with long term organ damage likely in survivors. The ease of extraction and distribution makes it a potential candidate for biological warfare although it is less stable than other agents, such as anthrax.

References

1. Sokołowska, I. *et al.* (2011) A single point mutation in ricin A-chain increases toxin degradation and inhibits EDEM1-dependent ER retrotranslocation. [Biochem J. 436 \(2\): 371-85.](#)
 2. Sokołowska, I. *et al.* (2015) Hydrophobicity of protein determinants influences the recognition of substrates by EDEM1 and EDEM2 in human cells. [BMC Cell Biol. 16: 1.](#)
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Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee

12 months from date of despatch

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight@800
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@550 , DyLight@650 , DyLight@680 , DyLight@800 , FITC , HRP

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