

Datasheet: MCA5639

Description:	MOUSE ANTI HUMAN APOLIPOPROTEIN E
Specificity:	APOLIPOPROTEIN E
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	WUE-4
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	▪			1/100 - 1/1000
Immunoprecipitation			▪	
Western Blotting	▪			

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	Human
Species Cross Reactivity	<p>Reacts with: Mouse</p> <p>Does not react with: Sea Lion, Harbour seal</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	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Purified ApoHDL fraction.
External Database Links	<p>UniProt: P02649 Related reagents</p> <p>Entrez Gene: 348 APOE Related reagents</p>
RRID	AB_10841622
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the Sp2/O-Ag14 mouse myeloma cell line.
Specificity	<p>Mouse anti Human Apolipoprotein E antibody, clone WUE-4 recognizes an epitope within amino acids 140-160 of human apolipoprotein E (Apo-E), a major component of very low-density lipoproteins (VLDLs). Apo-E is the principle apolipoprotein in the central nervous system, and is secreted by most organs into the plasma, playing a vital role in the binding, internalization and catabolism of triglyceride-rich lipoprotein constituents.</p> <p>Apo-E acts as a ligand for both the specific apo-E receptor (chylomicron remnant) of hepatic tissues, and the apoB,E (LDL) receptor. Three isoforms of Apo-E have been identified, ApoE2, E3 and E4, and have been linked with various disorders. ApoE2 has been shown to bind LPL receptors with low affinity, resulting in increased plasma cholesterol and triglyceride levels, and thereby an increased risk in cardiovascular disorders. ApoE4 is a high risk factor for Alzheimers disease (Sanan <i>et al.</i> 1994), and in particular late onset Alzheimer disease 2 (AD2), whilst ApoE3 is the most common isoform, and considered the normal/natural Apo-E genotype.</p> <p>Mouse anti Human Apolipoprotein E antibody, clone WUE-4 has been shown to inhibit Apo-E mediated binding of lipoproteins to the apoB,E cell receptor (Krul <i>et al.</i> 1998).</p>
Western Blotting	MCA5639 detects a major band of approximately 34-36kDa in human liver cell lysates.
References	<ol style="list-style-type: none"> Davis, R.W. <i>et al.</i> (1991) Lipoproteins in pinnipeds: analysis of a high molecular weight form of apolipoprotein E. J Lipid Res. 32 (6): 1013-23. Fagan, A.M. <i>et al.</i> (2004) ApoAI deficiency results in marked reductions in plasma cholesterol but no alterations in amyloid-beta pathology in a mouse model of Alzheimer's disease-like cerebral amyloidosis. Am J Pathol. 165: 1413-22.

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10. Jiang, J. *et al.* (2012) Hepatitis C virus attachment mediated by apolipoprotein E binding to cell surface heparan sulfate. [J Virol. 86: 7256-67.](#)
11. Lee, C.Y. *et al.* (2012) Apolipoprotein E promotes β -amyloid trafficking and degradation by modulating microglial cholesterol levels. [J Biol Chem. 287: 2032-44.](#)
12. Jiang, J. *et al.* (2013) Apolipoprotein e mediates attachment of clinical hepatitis C virus to hepatocytes by binding to cell surface heparan sulfate proteoglycan receptors. [PLoS One. 8: e67982.](#)
13. Fu, Y. *et al.* (2016) Apolipoprotein E lipoprotein particles inhibit amyloid- β uptake through cell surface heparan sulphate proteoglycan. [Mol Neurodegener. 11 \(1\): 37.](#)

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: <https://www.bio-rad-antibodies.com/SDS/MCA5639>
10040

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

- | | |
|---|--|
| Goat Anti Mouse IgG (STAR77...) | HRP |
| Rabbit Anti Mouse IgG (STAR12...) | RPE |
| Goat Anti Mouse IgG (STAR70...) | FITC |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | Alk. Phos. , HRP |

Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
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](#)

Recommended Negative Controls

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

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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
'M384541:210513'

Printed on 18 Jan 2024

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