

Datasheet: MCA5641

**BATCH NUMBER 1711**

<b>Description:</b>	MOUSE ANTI LIPOPROTEIN LIPASE
<b>Specificity:</b>	LIPOPROTEIN LIPASE
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	5D2
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			
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

Bovine

### Species Cross Reactivity

Reacts with: Rat, Human, Chicken, Guinea Pig

Does not react with: Mouse

**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

Purified IgG prepared by affinity chromatography on Protein G from tissue culture

supernatant

---

**Buffer Solution** Phosphate buffered saline

---

**Preservative Stabilisers** 0.09% Sodium Azide (NaN<sub>3</sub>)

---

**Carrier Free** Yes

---

**Approx. Protein Concentrations** IgG concentration 1.0mg/ml

---

**Immunogen** Purified bovine milk lipoprotein lipase.

---

**External Database Links**

**UniProt:**

[P11151](#) [Related reagents](#)

**Entrez Gene:**

[280843](#) LPL [Related reagents](#)

---

**RRID** AB\_10922752

---

**Specificity** **Mouse anti lipoprotein lipase antibody, clone 5D2** recognizes an epitope within amino acids 380-410 of lipoprotein lipase (LPL), a member of the AB hydrolase superfamily, which plays a pivotal role in lipoprotein metabolism and transport, acting as the key enzyme in the hydrolysis of triglycerides and very low density lipoproteins (VLDLs), and the release of free fatty acids into peripheral tissues.

A deficiency of LPL can result in hypertriglyceridemia, and many studies have focused on the critical role which LPL plays in the pathogenesis of atherosclerosis, and in particular the relationship between LPL and apolipoprotein E (ApoE), both of which are secreted in significant amounts by macrophages in developing arterial wall lesions.

Mouse anti Lipoprotein lipase antibody, clone 5D2 is a unique antibody which differentiates between monomeric inactive and dimeric active LPL, and binds to LPL sequences involved in LPL, LPL receptor, and heparin interactions. Mouse anti Lipoprotein lipase antibody, clone 5D2 has been shown to inhibit the activity of human LPL ([Chang \*et al.\* 1998](#)).

---

**ELISA** MCA5641 can be used in an indirect ELISA, or as the capture antibody in a sandwich ELISA with [MCA5641B](#) or [MCA5641P](#) as the detection reagent.

---

**Western Blotting** MCA5641 detects a band of approximately 53kDa using partially purified LPL from postheparin plasma.

---

**References** 1. Peterson, J. *et al.* (1992) Human lipoprotein lipase: relationship of activity, heparin affinity, and conformation as studied with monoclonal antibodies. [J Lipid Res. 33 \(8\): 1165-70.](#)

2. Chang, S.F. *et al.* (1998) Detailed characterization of the binding site of the lipoprotein lipase-specific monoclonal antibody 5D2. [J Lipid Res. 39 \(12\): 2350-9.](#)
3. Hussain, M.M. *et al.* (2000) High affinity binding between lipoprotein lipase and lipoproteins involves multiple ionic and hydrophobic interactions, does not require enzyme activity, and is modulated by glycosaminoglycans. [J Biol Chem. 275 \(38\): 29324-30.](#)

<b>Storage</b>	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA5641">https://www.bio-rad-antibodies.com/SDS/MCA5641</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M368265:200529'

Printed on 16 May 2025