

## Datasheet: MCA2061EL BATCH NUMBER 1702

Description:	MOUSE ANTI HUMAN CD284:Low Endotoxin				
Specificity:	CD284				
Other names:	TLR4				
Format:	Low Endotoxin				
Product Type:	Monoclonal Antibody				
Clone:	HTA125				
lsotype:	lgG2a				
Quantity:	0.5 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 p	information. For general protocol recommendations, please visit <u>www.bio-</u>					
	rad-antibodies.com/protocols.						
		Yes	No	Not Determined	Suggested Dilution		
	Flow Cytometry				1/10 - 1/50		
	Immunohistology - Frozen						
	Immunohistology - Paraffin			•			
	ELISA						
	Immunoprecipitation						
	Western Blotting						
	Functional Assays	•					
	Where this antibody 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 antibody for use in their own
	system using appropriate negative/positive controls						
	Target Species	Human					
Species Cross Reactivity	<ul> <li>Reacts with: Rhesus Monkey, Guinea Pig, Pig, Dog, Bovine</li> <li>N.B. Antibody reactivity and working conditions may vary between species. Cros reactivity is derived from testing within our laboratories, peer-reviewed publication</li> </ul>						
	personal communications 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	None present				
Carrier Free	Yes				
Endotoxin Level	< 0.01 EU/ug				
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml				
Immunogen	Ba/F3 cell line expressing TLR4 (CD284).				
External Database Links	UniProt: <u>O00206</u> <u>Related reagents</u>				
	Entrez Gene:				
	7099 TLR4 <u>Related reagents</u>				
RRID	AB_324379				
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the mouse SP2/0 myeloma cell line.				
Specificity	Mouse anti Human CD284 antibody, clone HTA125 recognizes the human Toll like receptor 4 (TLR4) cell surface antigen.				
	TLR4, also known as CD284, has been demonstrated to act as a receptor for LPS on human monocytes and macrophages. TLR4 signalling of LPS stimulation requires the presence of the MD-2 molecule.				
	TLR4 is weakly expressed by resting cells, but is upregulated following stimulation with LPS.				
	This antibody has been demonstrated to block activation of monocytes with LPS. The use of a preservative free format of Mouse anti Human CD284 antibody, clone HTA125 ( <u>MCA2061EL</u> ) is recommended for functional assays.				
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood.				
References	<ol> <li>Shimazu, R. <i>et al.</i> (1999) MD-2, a molecule that confers lipopolysaccharide responsiveness on Toll-like receptor 4. <u>J Exp Med. 189 (11): 1777-82.</u></li> <li>Jiang, Q. <i>et al.</i> (2000) Lipopolysaccharide induces physical proximity between CD14 and toll-like receptor 4 (TLR4) prior to nuclear translocation of NF-kappa B. <u>J Immunol.</u></li> </ol>				

<u>165 (7): 3541-4.</u>

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	<ol> <li>Garbe, K. <i>et al.</i> (2012) Plasmacytoid dendritic cells and their Toll-like receptor 9 expression selectively decrease with age. <u>Hum Immunol. 73 (5): 493-7.</u></li> <li>Zwolak, A. <i>et al.</i> (2016) Metformin Changes the Relationship between Blood Monocyte Toll-Like Receptor 4 Levels and Nonalcoholic Fatty Liver Disease-<i>Ex Vivo</i> Studies. <u>PLoS One. 11 (3): e0150233.</u></li> <li>Zwolak, A. <i>et al.</i> (2015) Hyperreactivity of Blood Leukocytes in Patients with NAFLD to ex vivo Lipopolysaccharide Treatment Is Modulated by Metformin and Phosphatidylcholine but Not by Alpha Ketoglutarate. <u>PLoS One. 10 (12): e0143851.</u></li> <li>Xu, H. <i>et al.</i> (2015) Type 3 innate lymphoid cell depletion is mediated by TLRs in lymphoid tissues of simian immunodeficiency virus-infected macaques. <u>FASEB J. 29 (12): 5072-80.</u></li> <li>Blagitz, M,G. <i>et al.</i> (2015) Expression of CD14 and toll-like receptors 2 and 4 by milk neutrophils in bovine mammary glands infected with <i>Corynebacterium bovis</i> <u>Pesquisa</u> <u>Veterinária Brasileira. 35 (1): 1-5.</u></li> <li>Huang, D. <i>et al.</i> (2016) Hyperoxia induces inflammation and regulates cytokine production in alveolar epithelium through TLR2/4-NF-kB-dependent mechanism <u>Eur Rev Med Pharmacol Sci. 20: 1399-410.</u></li> <li>Kyrova, K. <i>et al.</i> (2014) The response of porcine monocyte derived macrophages and dendritic cells to Salmonella typhimurium and lipopolysaccharide. <u>BMC Vet Res. 10: 244.</u></li> <li>Ibeagha-Awemu, E.M. <i>et al.</i> (2008) Bacterial lipopolysaccharide induces increased expression of toll-like receptor (TLR) 4 and downstream TLR signaling molecules in bovine mammary epithelial cells. <u>Vet Res. 39 (2): 11.</u></li> <li>Chochi, K. <i>et al.</i> (2008) <i>Helicobacter pylori</i> augments growth of gastric cancers via the lipopolysaccharide-toll-like receptor 4 pathway whereas its lipopolysaccharide attenuates antitumor activities of human mononuclear cells. <u>Clin Cancer Res. 14 (10): 2909-17.</u></li> <li>Elner, S.G. <i>et al.</i> (2005) TLR4 mediates human retinal pigme</li></ol>
Storage	Store at -20°C only. This product should be stored undiluted.
	Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: https://www.bio-rad-antibodies.com/SDS/MCA2061EL 10162
Regulatory	For research purposes only

# **Related Products**

# **Recommended Secondary Antibodies**

Rabbit A	Rabbit Anti Mouse IgG (STAR12) RPE							
Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u>								
Goat Ant	Goat Anti Mouse IgG (STAR76) RPE							
Goat Ant	Anti Mouse IgG (STAR70) <u>FITC</u>							
Goat Ant	Goat Anti Mouse IgG (H/L) (STAR117) <u>Alk. Phos., DyLight®488</u> , <u>DyLight®550</u> ,							
DyLight®650, DyLight®680, DyLight®800,								
	<u>FITC</u> , <u>HRP</u>							
Goat Ant	Goat Anti Mouse IgG (STAR77) <u>HRP</u>							
Goat Ant	Goat Anti Mouse IgG (Fc) (STAR120) <u>FITC, HRP</u>							
Rabbit A	Rabbit Anti Mouse IgG (STAR13) <u>HRP</u>							
Rabbit A	Rabbit Anti Mouse IgG (STAR9) <u>FITC</u>							
Recommended Negative Controls								
MOUSE IgG2a NEGATIVE CONTROL:Low Endotoxin (MCA929EL)								
	Tel: +1 800 265 7376 Worldwie Fax: +1 919 878 3751	de	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21			
America	Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com		Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-r	ad.com	Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com			
To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M366128:200529'								

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