

## Datasheet: MCA2061EL BATCH NUMBER 155532

Description:	MOUSE ANTI HUMAN CD284:Low Endotoxin
Specificity:	CD284
Other names:	TLR4
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	HTA125
Isotype:	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 µ	information. For general protocol recommendations, please visit <u>www.bio-</u>				
	rad-antibodies.com/proto	cols.				
		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			•	•	
	Where this antibody has necessarily exclude its us	se in sucl	n procedu	res. Suggested workin	g dilutions are given as	
	Where this antibody has	se in sucl	n procedu	res. Suggested workin	g dilutions are given as	
	Where this antibody has necessarily exclude its us	se in sucl nended th	n procedu nat the use	res. Suggested workin er titrates the antibody	g dilutions are given as	
Target Species	Where this antibody has necessarily exclude its us a guide only. It is recomm	se in sucl nended th	n procedu nat the use	res. Suggested workin er titrates the antibody	g dilutions are given as	
Species Cross	Where this antibody has necessarily exclude its us a guide only. It is recomm system using appropriate Human Reacts with: Rhesus Mor	se in such nended th negative nkey, Gui	n procedu nat the use e/positive nea Pig, F	res. Suggested workin er titrates the antibody controls Pig, Dog, Bovine	g dilutions are given as for use in their own	
	Where this antibody has necessarily exclude its us a guide only. It is recomm system using appropriate Human Reacts with: Rhesus Mor <b>N.B.</b> Antibody reactivity a	se in sucl nended th negative nkey, Gui and worki	n procedu nat the use positive nea Pig, F ng conditi	res. Suggested workin er titrates the antibody controls Pig, Dog, Bovine ons may vary betweer	ng dilutions are given as for use in their own n species. Cross	
Species Cross	Where this antibody has necessarily exclude its us a guide only. It is recomm system using appropriate Human Reacts with: Rhesus Mor <b>N.B.</b> Antibody reactivity a reactivity is derived from	se in such nended th negative nkey, Gui and worki testing w	n procedu nat the use positive nea Pig, F ng conditi ithin our la	res. Suggested workin er titrates the antibody controls Pig, Dog, Bovine ons may vary betweer aboratories, peer-revie	ng dilutions are given as for use in their own n species. Cross wed publications or	
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Species Cross	Where this antibody has necessarily exclude its us a guide only. It is recomm system using appropriate Human Reacts with: Rhesus Mor <b>N.B.</b> Antibody reactivity a reactivity is derived from	se in such nended th negative nkey, Gui and worki testing w	n procedu nat the use positive nea Pig, F ng conditi ithin our la	res. Suggested workin er titrates the antibody controls Pig, Dog, Bovine ons may vary betweer aboratories, peer-revie	ng dilutions are given as for use in their own n species. Cross wed publications or	

Preparation	Purified IgG prepared by affinity chromatography on Protein A 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: <u>7099</u> 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 Ar	nti Mouse IgG (STAR12)	RPE						
Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u>								
Goat Ant	Mouse IgG (STAR76)	RPE						
Goat Ant	Mouse IgG (STAR70)	<u>FITC</u>						
Goat Ant	Mouse IgG (H/L) (STAR117)	Alk. Phos., DyLight®488, DyL	<u>_ight®550,</u>					
		DyLight®650, DyLight®680, I	DyLight®800	<u>)</u> ,				
		<u>FITC, HRP</u>						
Goat Ant	Mouse IgG (STAR77)	HRP						
Goat Ant	Mouse IgG (Fc) (STAR120)	<u>FITC, HRP</u>						
Rabbit Ar	nti Mouse IgG (STAR13)	HRP						
Rabbit Ar	nti Mouse IgG (STAR9)	<u>FITC</u>						
Recommended Negative Controls								
MOUSE IgG2a NEGATIVE CONTROL:Low Endotoxin (MCA929EL)								
North & South	Tel: +1 800 265 7376 Worldwi	<b>le</b> 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-rad	com	Fax: +49 (0) 89 8090 95 50 Email: antibody sales de@bio-rad.com				
	Linai. antibody_sales_us@bio-rad.com							
To find a b	atch/lot specific datasheet for this p	roduct, please use our online sea 'M373732:200930'	rch tool at: bi	o-rad-antibodies.com/datasheets				

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