

# Datasheet: MCA2704GA

### **BATCH NUMBER 167109**

Description:	MOUSE ANTI HUMAN CD300a
Specificity:	CD300a
Other names:	IRp60
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MEM-260
Isotype:	lgG1
Quantity:	0.1 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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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	Human	
Product Form	Purified IgG - liquid	
Preparation	Purified IgG prepared by affinity chromatography on Protein A supernatant.	- A from tissue culture
Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	<0.1% Sodium Azide (NaN <sub>3</sub> )	

Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Human HPB acute lymphoid leukaemia cell line.
External Database Links	UniProt:  Q9UGN4 Related reagents  Entrez Gene:  11314 CD300A Related reagents
Synonyms	CMRF35H, IGSF12
RRID	AB_2073994
Specificity	Mouse anti Human CD300a antibody, clone MEM-260 recognizes human CD300a, otherwise known as IRp60 or inhibitory receptor protein 60, CD300a is a ~60 kDa transmembrane glycoprotein expressed by natural killer cells (NK), T and B cell subsets, monocytes, neutrophils, macrophages, granulocytes, dendritic cells (DC) and mast cells.  Cross-linking of CD300a on NK results in a down-regulation of their cytolytic activity, whilst cross-linking of CD300a on mast cells, inhibits IgE-induced degranulation and SCF-mediated survival. Furthermore, cross-linking of CD300a on the surface of eosinophils has been shown to significantly inhibit their survival, chemotaxis and activation in response to certain inflammatory cytokines, whilst eosinophil-derived MBP (major basic protein) and EDN (neurotoxin), can down-regulate CD300a expression on mast cells <i>in vitro</i> (Bachelet <i>et al.</i> ).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul.
Western Blotting	MCA2704GA detects a band of approximately 60kDa in HPB cell lysates under non-reducing conditions.
References	1. Sabato, V. <i>et al.</i> (2012) CD300a is expressed on human basophils and seems to inhibit IgE/FcεRI-dependent anaphylactic degranulation. Cytometry B Clin Cytom. 82 (3): 132-8.  2. Kim, E.J. <i>et al.</i> (2012) CD300a and CD300f differentially regulate the MyD88 and TRIF-mediated TLR signalling pathways through activation of SHP-1 and/or SHP-2 in human monocytic cell lines. Immunology. 135: 226-35.
Further Reading	1. Bachelet, I. <i>et al.</i> (2005) The inhibitory receptor IRp60 (CD300a) is expressed and functional on human mast cells. <u>J Immunol. 175 (12): 7989-95.</u>
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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2704GA">https://www.bio-rad-antibodies.com/SDS/MCA2704GA</a> 10040
Regulatory	For research purposes only

# **Related Products**

## **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12...) RPE

Goat Anti Mouse IgG IgA IgM (STAR87...) Alk. Phos., HRP

Goat Anti Mouse IgG (STAR76...)

Rabbit Anti Mouse IgG (STAR13...)

HRP

Goat Anti Mouse IgG (STAR70...)

FITC

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Goat Anti Mouse IgG (STAR77...) HRP
Rabbit Anti Mouse IgG (STAR9...) FITC

# **Recommended Negative Controls**

#### MOUSE IgG1 NEGATIVE CONTROL (MCA928)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

 $\textbf{Email: antibody\_sales\_us@bio-rad.com} \\ \textbf{Email: antibody\_sales\_uk@bio-rad.com} \\ \textbf{Email: antibody\_sales\_uk@b$ 

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M389462:210806'

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