Datasheet: MCA2044

BATCH NUMBER 153575

Description:	MOUSE ANTI HUMAN HLA G
Specificity:	HLA G
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MEM-G/9
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 (1)	▪			
Immunohistology - Paraffin		▪		
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting		▪		
Immunofluorescence	▪			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.
(1)**The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.**

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline

Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Recombinant human HLA-G refolded with beta 2 microglobulin.
External Database Links	**UniProt:** P17693 Related reagents **Entrez Gene:** 3135 HLA-G Related reagents
Synonyms	HLA-6.0, HLAG
RRID	AB_323364
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with myeloma cells.
Specificity	**Mouse anti Human HLA G antibody, clone MEM-G/9** recognizes human HLA-G, a non-classical major histocompatibility complex (MHC) molecule. HLA-G expression is restricted to trophoblast cells and some medullary thymic epithelial cells. Several isoforms of the HLA-G molecule exist, which include the membrane bound isoforms HLA-G1 – G4 and soluble isoforms HLA-G5 – G7. Clone MEM-G/9 specifically recognizes surface expressed native HLA-G1, when associated with beta 2 microglobulin, but not does recognize the isoforms HLA-G2, G3 and G4. CMouse anti Human HLA G antibody, clone MEM-G/9 has also been reported to recognize the soluble isoform HLA-G5.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Fournel, S. *et al.* (2000) Comparative reactivity of different HLA-G monoclonal antibodies to soluble HLA-G molecules. Tissue Antigens. 55 (6): 510-8. 2. Menier, C. *et al.* (2003) Characterization of monoclonal antibodies recognizing HLA-G or HLA-E: new tools to analyze the expression of nonclassical HLA class I molecules. Hum Immunol. 64 (3): 315-26. 3. Kotze, D.J. *et al.* (2010) Embryo selection criteria based on morphology VERSUS the expression of a biochemical marker (sHLA-G) and a graduated embryo score: prediction of pregnancy outcome. J Assist Reprod Genet. 27 (6): 309-16. 4. Guetta, E. *et al* (2005) Trophoblasts isolated from the maternal circulation: *in vitro* expansion and potential application in non-invasive prenatal diagnosis. J Histochem Cytochem. 53: 337-9. 5. Hiby, S.E. *et al* (2010) Maternal activating KIRs protect against human reproductive failure mediated by fetal HLA-C2 J Clin Invest. 120: 4102-10. 6. Sher, G. *et al.* (2005) Influence of early ICSI-derived embryo sHLA-G expression on pregnancy and implantation rates: a prospective study. Hum Reprod. 20: 1359-63. 7. Sher, G. *et al.* (2005) Soluble human leukocyte antigen G expression in phase I culture media at 46 hours after fertilization predicts pregnancy and implantation from day 3

embryo transfer. Fertil Steril. 83: 1410-3.
8. Apps, R. *et al.* (2011) Ex vivo functional responses to HLA-G differ between blood and decidual NK cells. Mol Hum Reprod. 17: 577-86.
9. Manaster, I. *et al.* (2012) MiRNA-mediated control of HLA-G expression and function. PLoS One. 7: e33395.
10. Nückel, H. *et al.* (2005) HLA-G expression is associated with an unfavorable outcome and immunodeficiency in chronic lymphocytic leukemia. Blood. 105: 1694-8.
11. Yao, Y.Q. *et al.* (2005) Differential expression of alternatively spliced transcripts of HLA-G in human preimplantation embryos and inner cell masses. J Immunol. 175 (12): 8379-85.
12. de Carvalho, J.F. *et al.* (2012) Heparin increases HLA-G levels in primary antiphospholipid syndrome. Clin Dev Immunol. 2012: 232390.
13. Guenther, S. *et al.* (2012) Decidual macrophages are significantly increased in spontaneous miscarriages and over-express FasL: a potential role for macrophages in trophoblast apoptosis. Int J Mol Sci. 13 (7): 9069-80.
14. Apps, R. *et al.* (2011) Genome-wide expression profile of first trimester villous and extravillous human trophoblast cells. Placenta. 32 (1): 33-43.
15. Lim DS *et al.* (2014) The combination of type I IFN, TNF-α, and cell surface receptor engagement with dendritic cells enables NK cells to overcome immune evasion by dengue virus. J Immunol. 193 (10): 5065-75.
16. Reches, A. *et al.* (2016) HNRNPR Regulates the Expression of Classical and Nonclassical MHC Class I Proteins. J Immunol. 196 (12): 4967-76.
17. Bröker, P *et al.* (2012) A nanostructured SAW chip-based biosensor detecting cancer cells Sensors and Actuators B: Chemical. 165 (1): 1-6.

Storage	Store at +4°C or at -20°C if preferred. This product should be stored undiluted. Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. 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 #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2044 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE

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
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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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

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

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