Datasheet: MCA2044F

BATCH NUMBER 163409

Description:	MOUSE ANTI HUMAN HLA G:FITC
Specificity:	HLA G
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	MEM-G/9
Isotype:	IgG1
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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			

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.

Target Species

Human

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

<0.1% Sodium Azide (NaN_3)
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.1 mg/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_322626
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.

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12. de Carvalho, J.F. *et al.* (2012) Heparin increases HLA-G levels in primary antiphospholipid syndrome. Clin Dev Immunol. 2012: 232390.
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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.
18. Reches, A. *et al.* (2020) A Unique Regulation Region in the 3' UTR of HLA-G with a Promising Potential. Int J Mol Sci. 21 (3): 900.

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. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2044F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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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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