

Datasheet for ABIN94369

anti-HLAG antibody

4 Images

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Overview

Quantity:	0.1 mg
Target:	HLAG
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HLAG antibody is un-conjugated
Application:	ELISA, Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunoprecipitation (IP), Immunocytochemistry (ICC)

Product Details

Immunogen:	Recombinant human HLA-G refolded with beta2-microglobulin and peptide.
Clone:	MEM-G-9
Isotype:	IgG1
Specificity:	The antibody MEM-G/9 reacts with an extracellular epitope on native form of human HLA-G1 on the cell surface as well as with soluble HLA-G5 isoform in its beta2-microglobulin associated form. Reactivity with HLA-G3 was also reported. The antibody MEM-G/9 is standard reagent thoroughly validated during 3rd International Conference on HLA-G (Paris, 2003).
No Cross-Reactivity:	Mouse
Cross-Reactivity (Details):	Human
Purification:	Purified by protein-A affinity chromatography.

Product Details

Purity: > 95 % (by SDS-PAGE)

Target Details

Target: HLAG

Alternative Name: HLA-G ([HLAG Products](#))

Background: Major histocompatibility complex, class I, G, Human leukocyte antigen G (HLA-G), belonging to MHC class I glycoproteins, plays important roles in both physiological and pathological immunotolerance. It gives an inhibitory signal to cytotoxic T cells, NK cells, monocytes, and some other immune cells. It also induces regulatory T cells and anti-inflammatory macrophages. HLA-G is important e.g. for maternal tolerance to the fetus, and for immunomodulation in particular adult tissues, such as in cornea, pancreatic islets, thymus and other. On the other hand, it is expressed in many solid and hematologic malignancies, where it contributes to evasion of the immune surveillance. HLA-G expression pattern in cancer is an important prognostic factor regarding a poor clinical outcome. Unlike most other MHC glycoproteins, HLA-G acts as an immune checkpoint molecule rather than as an antigen presenting molecule. It concerns both transmembrane and soluble HLA-G isoforms. Among other, HLA-G can promote Th2 immunological response and downregulate Th1 immunological response. For its benefits regarding allograft tolerance, including embryo implantation, soluble HLA-G (sHLA-G) can be used as a marker of developmental potential of embryos during the process of in vitro fertilization. Similarly, sHLA-G concentrations in maternal serum are decreased in preeclampsia. Transplanted patients with increased sHLA-G serum levels have improved allograft acceptance. On the other hand, increased sHLA-G can also indicate presence of malignant (sometimes also of benign) tumor cells. Another important topic is induction of HLA-G expression (sometimes associated with shedding of HLA-G from the cell surface) by some anti-cancer or anti-viral therapies, which can weaken the therapy effect. Monitoring of HLA-G in patients thus has a wide usage.

Gene ID: 3135

UniProt: [P17693](#)

Pathways: [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Cancer Immune Checkpoints](#)

Application Details

Application Notes: Flow cytometry: Recommended dilution: 0.3-4 µg/mL, positive control: JEG-3 human

Application Details

choriocarcinoma cell line.

Immunocytochemistry: Recommended dilution: 2-5 µg/mL.

ELISA: The antibody MEM-G/9 has been tested as the capture antibody in a sandwich ELISA for analysis of human HLA-G in combination with antibody B2M-01 or with antibody W6/32.

Coating antibody 10 µg/mL, detection antibody (biotin or peroxidase conjugate) 1 µg/mL.

Restrictions: For Research Use only

Handling

Concentration: 1 mg/mL

Buffer: Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: **Do not freeze.**

Storage: 4 °C

Storage Comment: Store at 2-8°C. Do not freeze.

Publications

Product cited in: Zhao, Teklemariam, Hantash: "Reassessment of HLA-G isoform specificity of MEM-G/9 and 4H84 monoclonal antibodies." in: **Tissue antigens**, Vol. 80, Issue 3, pp. 231-8, (2012) ([PubMed](#)).

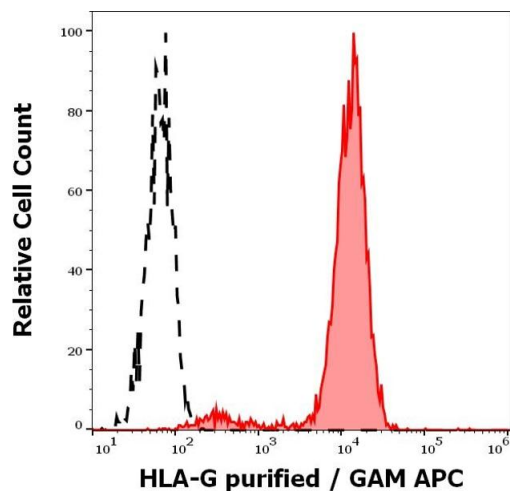
Gauster, Berghold, Moser, Orendi, Siwetz, Huppertz: "Fibulin-5 expression in the human placenta." in: **Histochemistry and cell biology**, Vol. 135, Issue 2, pp. 203-13, (2011) ([PubMed](#)).

Giuliani, Fleury, Vernochet, Ketrroussi, Clay, Azzarone, Lataillade, Durrbach: "Long-lasting inhibitory effects of fetal liver mesenchymal stem cells on T-lymphocyte proliferation." in: **PLoS ONE**, Vol. 6, Issue 5, pp. e19988, (2011) ([PubMed](#)).

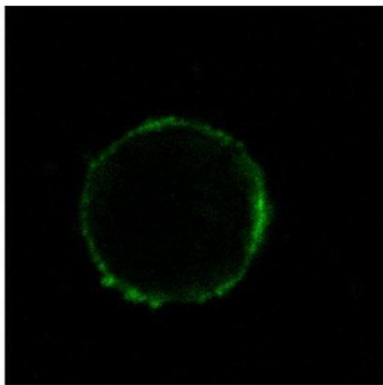
Gonzalez, Alegre, Arroyo, LeMaout, Echeveste: "Identification of circulating nonclassic human leukocyte antigen G (HLA-G)-like molecules in exudates." in: **Clinical chemistry**, Vol. 57, Issue 7, pp. 1013-22, (2011) ([PubMed](#)).

Ongaro, Stignani, Pellati, Melchiorri, Massari, Caruso, De Mattei, Caruso, Baricordi, Rizzo: "Human leukocyte antigen-G molecules are constitutively expressed by synovial fibroblasts and upmodulated in osteoarthritis." in: **Human immunology**, Vol. 71, Issue 4, pp. 342-50, (2010) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



HLA-G



Flow Cytometry

Image 1. Separation of HLA-G trasnfected LCL cells (red-filled) from K562 cells (black-dashed) in flow cytometry analysis (surface staining) stained using anti-human HLA-G (MEM-G/9) purified antibody (concentration in sample 0.3 μ g/mL, GAM APC).

Immunofluorescence

Image 2. Immunofluorescence staining of HLA-G1 transfectants (LCL-HLA-G1) using anti-human HLA-G () Alexa Fluor® 488 Fab-fragment.



Immunoprecipitation

Image 3. Immunoprecipitation of HLA-G from HLA-G1 transfectants (LCL-HLA-G1) by anti-human HLA-G () and protein G. HLA-G was detected by anti-human HLA-G (4H84) and goat anti-mouse HRP in cell lysate (Lane 1) and in the immunoprecipitate (Lane 2).

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN94369.