

Datasheet for ABIN94359

## anti-HLAG antibody

2 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:	HLA-B27 transgenic mice were immunized with H-2 identical murine cells transfected with and expressing genes encoding HLA-G and human beta2-microglobulin.
Clone:	01G
Isotype:	IgG1
Specificity:	The antibody 01G recognizes membrane-bound form of HLA-G (full-length HLA-G1), but not soluble forms. HLA-G belongs to the MHC Class I molecules (MHC Class Ib, nonclassical) and it is expressed on the surface of trophoblast cells.
No Cross-Reactivity:	Mouse, Rat
Cross-Reactivity (Details):	Human
Purification:	Purified by protein-A affinity chromatography.

## Product Details

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Purity: > 95 % (by SDS-PAGE)

## Target Details

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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](#), [Human Leukocyte Antigen \(HLA\) in Adaptive Immune Response](#)

## Application Details

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Application Notes: Flow cytometry: Recommended dilution: 2-4 µg/mL.

## Application Details

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: Wiendl, Feger, Mittelbronn, Jack, Schreiner, Stadelmann, Antel, Brueck, Meyermann, Bar-Or, Kieseier, Weller: "Expression of the immune-tolerogenic major histocompatibility molecule HLA-G in multiple sclerosis: implications for CNS immunity." in: **Brain : a journal of neurology**, Vol. 128, Issue Pt 11, pp. 2689-704, (2005) ([PubMed](#)).

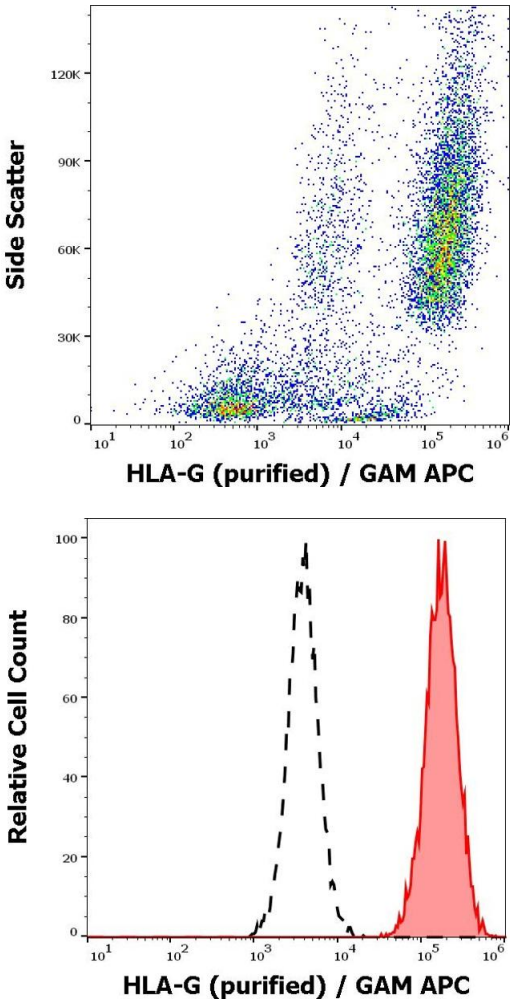
Poláková, Bandzuchová, Hofmeister, Weiss, Hutter, Russ: "Binding analysis of HLA-G specific antibodies to hematopoietic cells isolated from leukemia patients." in: **Neoplasma**, Vol. 50, Issue 5, pp. 331-8, (2003) ([PubMed](#)).

Poláková, Krcová, Kuba, Russ: "Analysis of HLA-G expression in malignant hematopoietic cells from leukemia patients." in: **Leukemia research**, Vol. 27, Issue 7, pp. 643-8, (2003) ([PubMed](#)).

Poláková, Russ: "Expression of the non-classical HLA-G antigen in tumor cell lines is extremely restricted." in: **Neoplasma**, Vol. 47, Issue 6, pp. 342-8, (2001) ([PubMed](#)).

Real, Cabrera, Canton, Oliva, Ruiz-Cabello, Garrido: "Looking for HLA-G expression in human tumours." in: **Journal of reproductive immunology**, Vol. 43, Issue 2, pp. 263-73, (1999) ([PubMed](#)).

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



### Flow Cytometry

**Image 1.** Flow cytometry surface staining pattern of HLA-G transfected LCL cells using anti-human HLA-G (01G) purified antibody (concentration in sample 16 µg/mL) GAM APC.

### Flow Cytometry

**Image 2.** Separation of HLA-G transfected LCL cells (red-filled) from K562 cells (black-dashed) in flow cytometry analysis (surface staining) using anti-human HLA-G (01G) purified antibody (concentration in sample 16 µg/mL) GAM APC.