

Datasheet for ABIN192336  
**anti-HLAG antibody (C-Term) (PE)**



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## Overview

Quantity:	0.1 mg
Target:	HLAG
Binding Specificity:	C-Term
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HLAG antibody is conjugated to PE
Application:	Flow Cytometry (FACS)

## Product Details

Immunogen:	C-terminal amino acid sequence (22-mer) of soluble HLA-G5 and HLA-G6 proteins coupled to ovalbumin.
Clone:	5A6G7
Isotype:	IgG1
Specificity:	The mouse monoclonal antibody 5A6G7 was generated to a peptide corresponding to C-intron 4-encoded sequence. This antibody does not crossreact with the full-length HLA-G1 isoform and thus allows to distinguish between secreted HLA-G5 and HLA-G6 isoforms from shedded HLA-G1.
Cross-Reactivity (Details):	Human
Purification:	Purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions. Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

## Target Details

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Target:	HLA-G
Alternative Name:	HLA-G ( <a href="#">HLA-G Products</a> )
Background:	<p>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.</p>
Gene ID:	3135
UniProt:	<a href="#">P17693</a>
Pathways:	<a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">Positive Regulation of Immune Effector Process</a> , <a href="#">Cancer Immune Checkpoints</a> , <a href="#">Human Leukocyte Antigen (HLA) in Adaptive Immune Response</a>

## Application Details

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Application Notes:	Flow cytometry: Recommended dilution: 1-4 µg/mL. Intracellular staining.
Comment:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Restrictions:	For Research Use only

## Handling

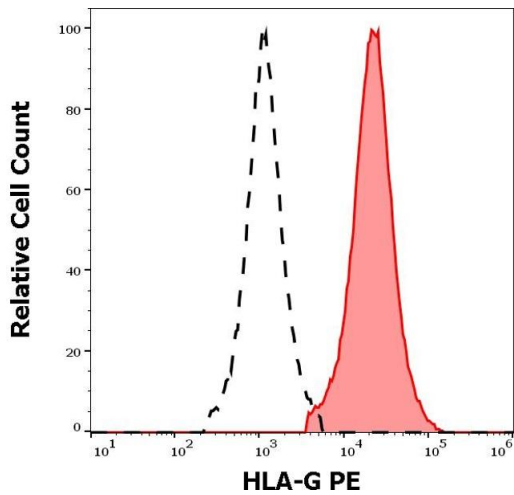
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Concentration:	0.1 mg/mL
Buffer:	Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	<b>Do not freeze.</b> Avoid prolonged exposure to light.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

## Publications

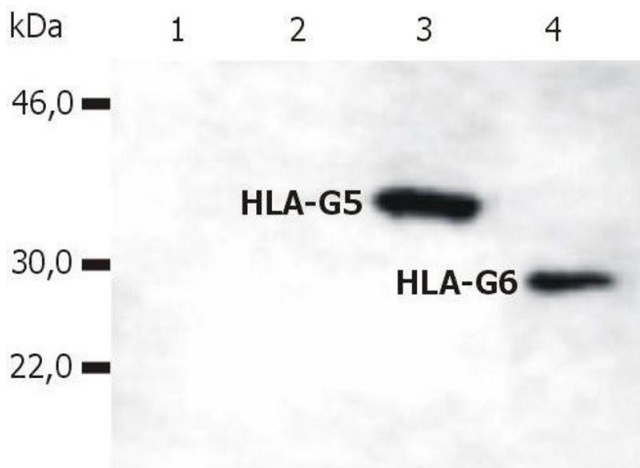
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- Product cited in:
- Poláková, Železníková, Russ: "HLA-G5 in the blood of leukemia patients and healthy individuals." in: **Leukemia research**, Vol. 37, Issue 2, pp. 139-45, (2013) ([PubMed](#)).
- Lafon, Prehaud, Megret, Lafage, Mouillot, Roa, Moreau, Rouas-Freiss, Carosella: "Modulation of HLA-G expression in human neural cells after neurotropic viral infections." in: **Journal of virology**, Vol. 79, Issue 24, pp. 15226-37, (2005) ([PubMed](#)).
- Le Rond, Gonzalez, Gonzalez, Carosella, Rouas-Freiss: "Indoleamine 2,3 dioxygenase and human leucocyte antigen-G inhibit the T-cell alloproliferative response through two independent pathways." in: **Immunology**, Vol. 116, Issue 3, pp. 297-307, (2005) ([PubMed](#)).
- Rebmann, Lemaoult, Rouas-Freiss, Carosella, Grosse-Wilde: "Report of the Wet Workshop for Quantification of Soluble HLA-G in Essen, 2004." in: **Human immunology**, Vol. 66, Issue 8, pp. 853-63, (2005) ([PubMed](#)).
- Le Rond, Le Maoult, Créput, Menier, Deschamps, Le Friec, Amiot, Durrbach, Dausset, Carosella, Rouas-Freiss: "Alloreactive CD4+ and CD8+ T cells express the immunotolerant HLA-G molecule in mixed lymphocyte reactions: in vivo implications in transplanted patients." in: **European journal of immunology**, Vol. 34, Issue 3, pp. 649-60, (2004) ([PubMed](#)).



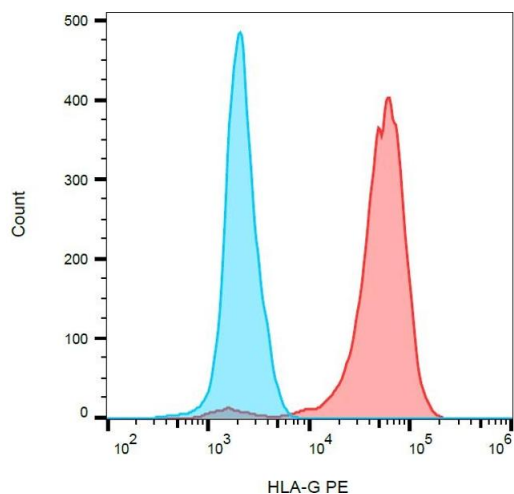
### Flow Cytometry

**Image 1.** Separation of HLA-G transfected HEK-293 cells stained using anti-human HLA-G (5A6G7) PE antibody (10 µL reagent per million cells in 100 µL of cell suspension, red-filled) from HLA-G transfected HEK-293 cells stained using mouse IgG1 isotype control (MOPC-21) PE antibody (concentration in sample 1,7 µg/mL, same as HLA-G PE concentration, black-dashed) in flow cytometry analysis (intracellular staining) of HLA-G transfected HEK-293 cells suspension.



### Western Blotting

**Image 2.** Western Blotting analysis of whole cell lysate of HLA-G stable transfectants (various splice variants) using anti-human HLA-G (5A6G7). Lane 1: M8 cell line transfected with empty vector Lane 2: M8 cell line transfected with HLA-G1 Lane 3: M8 cell line transfected with HLA-G5 Lane 4: M8 cell line transfected with HLA-G6



### Flow Cytometry

**Image 3.** Flow cytometry analysis (surface staining) of HLA-G in HLA-G6 transfectants with anti-HLA-G (5A6G7) PE.