

Datasheet for ABIN94380
anti-HLAG antibody (C-Term)



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Overview

Quantity:	100 µg
Target:	HLAG
Binding Specificity:	C-Term
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This HLAG antibody is un-conjugated
Application:	Flow Cytometry (FACS), ELISA, Western Blotting (WB), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC)

Product Details

Purpose:	Anti-HLA-G Purified
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.

Product Details

Cross-Reactivity (Details): Human

Purification: Purified by protein-A affinity chromatography.

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

Application Details

Application Notes:	Flow cytometry: Recommended dilution: 1-4 µg/mL. Intracellular staining. Immunohistochemistry (frozen sections): Recommended dilution: 10 µg/mL, positive tissue: placenta. Immunohistochemistry (paraffin sections): Recommended dilution: 10 µg/mL, positive tissue: placenta. ELISA: Positive control: HeLa/HLA-G5 transfectants cell lysate, HeLa/HLA-G5 cell supernatant, negative control: HeLa cell lysate. The antibody 5A6G7 has been tested as the capture antibody in a sandwich ELISA for analysis of soluble HLA-G in combination with antibody W6/32 (cat. no. 1B-422-C100). Western blotting: Positive control: JEG-3 cell lysate, reducing conditions, 12 % AA SDS-PAGE.
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Restrictions:	For Research Use only
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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:	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). Favier, Howangyin, Wu, Caumartin, Daouya, Horuzsko, Carosella, Lemaoult: "Tolerogenic Function of Dimeric Forms of HLA-G Recombinant Proteins: A Comparative Study In Vivo." in: PLoS ONE , Vol. 6, Issue 7, pp. e21011, (2011) (PubMed). Platonova, Cherfils-Vicini, Damotte, Crozet, Vieillard, Validire, André, Dieu-Nosjean, Alifano, Régnard, Fridman, Sautès-Fridman, Cremer: "Profound coordinated alterations of intratumoral
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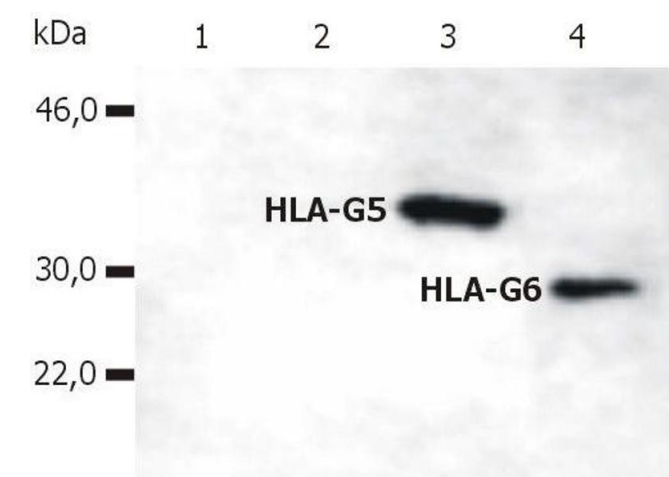
NK cell phenotype and function in lung carcinoma." in: **Cancer research**, Vol. 71, Issue 16, pp. 5412-22, (2011) ([PubMed](#)).

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, Torres, Duiaz-Lagares, Lorite, Palomeque, Arroyo: "Evaluation of HLA-G5 Plasmatic Levels During Pregnancy and Relationship with the 14-bp Polymorphism." in: **American journal of reproductive immunology (New York, N.Y. : 1989)**, (2010) ([PubMed](#)).

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

Images



Western Blotting

Image 1. 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