

Datasheet for ABIN94366

anti-HLAG antibody

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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:	Western Blotting (WB), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	Denatured bacterially expressed recombinant human HLA-G heavy chain.
Clone:	MEM-G-1
Isotype:	IgG1
Specificity:	The antibody MEM-G/1 reacts with an extracellular epitope of denatured HLA-G heavy chain. HLA-G belongs to the MHC Class I molecules (MHC Class Ib, nonclassical) and it is expressed on the surface of trophoblast cells.
Cross-Reactivity (Details):	Human
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

Target Details

Target:	HLA-G
Alternative Name:	HLA-G (HLA-G 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:	Immunohistochemistry (paraffin sections): Recommended dilution: 1:60 to 1:100, incubation: 1 h at RT, positive tissue: human placenta - extravillous cytotrophoblast, heat retrieval in 0.01M citrate buffer (4x2 min. in microwave oven). Western blotting: Recommended dilution 1-2 µg/mL.
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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: Jasinski-Bergner, Stehle, Gonschorek, Kalich, Schulz, Huettelmaier, Braun, Seliger: "Identification of 14-3-3? Gene as a Novel miR-152 Target Using a Proteome-based Approach." in: **The Journal of biological chemistry**, Vol. 289, Issue 45, pp. 31121-35, (2014) ([PubMed](#)).

Amiot, Vu, Rauch, LHelgoualch, Chalmel, Gascan, Turlin, Guyader, Samson: "Expression of HLA-G by mast cells is associated with hepatitis C virus-induced liver fibrosis." in: **Journal of hepatology**, Vol. 60, Issue 2, pp. 245-52, (2014) ([PubMed](#)).

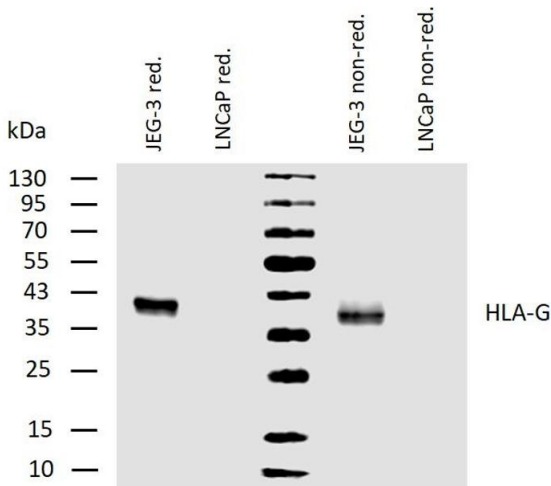
Larsen, Bzorek, Pass, Larsen, Nielsen, Svendsen, Lindhard, Hviid: "Human leukocyte antigen-G in the male reproductive system and in seminal plasma." in: **Molecular human reproduction**, Vol. 17, Issue 12, pp. 727-38, (2011) ([PubMed](#)).

Biondi, Ferretti, Lunghi, Medici, Cervellati, Pavan, Vesce, Morano, Adinolfi, Bertoni, Abelli: "cAMP efflux from human trophoblast cell lines: a role for Multidrug Resistance Protein (MRP)1 transporter." in: **Molecular human reproduction**, (2010) ([PubMed](#)).

Gonen-Gross, Achdout, Arnon, Gazit, Stern, Horejsi, Goldman-Wohl, Yagel, Mandelboim: "The CD85J/leukocyte inhibitory receptor-1 distinguishes between conformed and beta 2-microglobulin-free HLA-G molecules." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 175, Issue 8, pp. 4866-74, (2005) ([PubMed](#)).

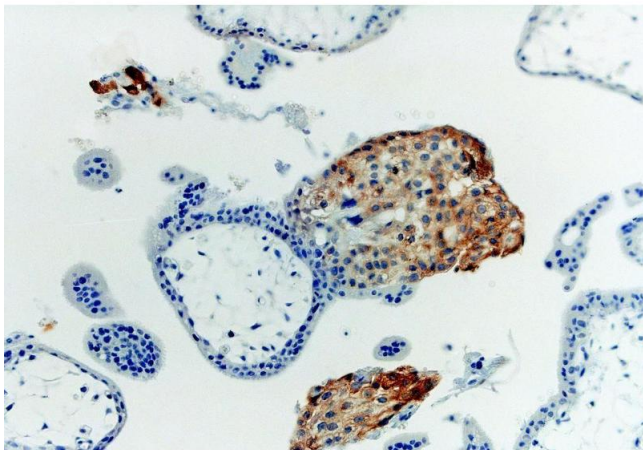
There are more publications referencing this product on: [Product page](#)

Images



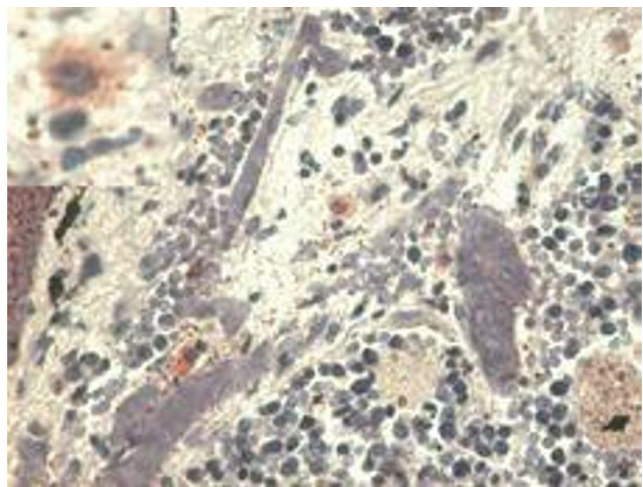
Western Blotting

Image 1. Western blotting analysis of human HLA-G using mouse monoclonal antibody MEM-G/1 on lysates of JEG-3 cell line and LNCaP cell line (negative control) under reducing and non-reducing conditions. Nitrocellulose membrane was probed with 2 µg/mL of mouse monoclonal antibody anti-HLA-G followed by IRDye800-conjugated anti-mouse secondary antibody. HLA-G was detected at approximately 40 kDa.



Immunohistochemistry

Image 2. Immunohistochemistry staining with anti-human HLA-G (MEM-G/1). Fig. 1A - pulmonary diseases (paraffin-embedded sections) The antibody MEM-G/1 stains infiltrating macrophages in pulmonary diseases. In the top left corner see the detail of macrophage. Fig. 1B - first-trimester placenta (paraffin-embedded sections) Fig. 1B Immunohistochemistry (first-trimester placenta)



Immunohistochemistry

Image 3. Immunohistochemistry staining with anti-human HLA-G (MEM-G/1). Fig. 1A - pulmonary diseases (paraffin-embedded sections) The antibody MEM-G/1 stains infiltrating macrophages in pulmonary diseases. In the top left corner see the detail of macrophage.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN94366.