

## Anti-HLA-G Purified Azide Free Monoclonal Antibody

Catalog Number: M01235-2

### About HLA-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.

### Overview

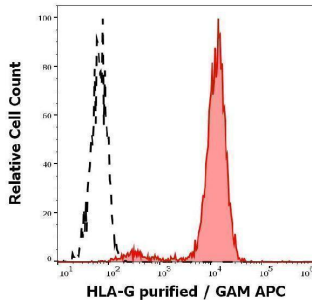
Product Name	Anti-HLA-G Purified Azide Free Monoclonal Antibody
Reactive Species	Human
Description	Boster Bio Anti-HLA-G Purified Azide Free Monoclonal Antibody (Catalog# M01235-2). Tested in Flow Cytometry, IP, IHC-F, ICC, ELISA application(s). This antibody reacts with Human.
Application	ELISA, Flow Cytometry, IP, IHC-F, ICC
Clonality	Monoclonal MEM-G/9
Formulation	Phosphate buffered saline (PBS), pH 7.4, azide-free
Storage Instructions	Store at 2-8°C. Do not freeze.
Host	Mouse
Uniprot ID	P17693

### Technical Details

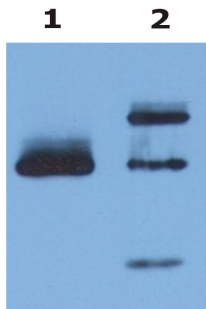
Immunogen	Recombinant human HLA-G refolded with beta2-microglobulin and peptide. The antibody MEM-G/9 reacts with an extracellular epitope on native form of human HLA-G1 on the cell surface as well as with soluble HLA-G5 isoform in its beta2-microglobulin associated form. Reactivity with HLA-G3 was also reported. The antibody MEM-G/9 is standard reagent thoroughly validated during 3rd International Conference on HLA-G (Paris, 2003).
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Predicted Reactive Species	Primate
Isotype	Mouse IgG1
Form	Liquid
Concentration	1 mg/ml
Purification	Purified by protein-A affinity chromatography.
Suggested Dilutions	Flow cytometry: 0.3-4 ug/ml; positive control: JEG-3 human choriocarcinoma cell line. Immunocytochemistry: 2-5 ug/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 ug/ml, detection antibody (biotin or peroxidase conjugate) 1 ug/ml. Immunohistochemistry: 1-4 ug/ml.

## Anti-HLA-G Purified Azide Free Monoclonal Antibody (M01235-2) Images



Separation of HLA-G transfected 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 µg/ml, GAM APC).



Immunoprecipitation of HLA-G from HLA-G1 transfectants (LCL-HLA-G1) by anti-human HLA-G (MEM-G/9) and protein G. HLA-G was detected by anti-human HLA-G (clone 4H84) and goat anti-mouse HRP in cell lysate (Lane 1) and in the immunoprecipitate (Lane 2).

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