

# HLA G Antibody

Rabbit mAb

Catalog # AP91116

## Product Information

Application	WB
Primary Accession	<a href="#">P17693</a>
Reactivity	Human
Clonality	Monoclonal
Other Names	HLA G antigen; MHC class I antigen G; HLA-G; HLA60; HLAG;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	38224

## Additional Information

Dilution	WB 1:500~1:2000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human HLA G
Description	Involved in the presentation of foreign antigens to the immune system. Plays a role in maternal tolerance of the fetus by mediating protection from the deleterious effects of natural killer cells, cytotoxic T lymphocytes, macrophages and mononuclear cells.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

Name	HLA-G {ECO:0000303   PubMed:1570318, ECO:0000312   HGNC:HGNC:4964}
Function	[Isoform 1]: Non-classical major histocompatibility class Ib molecule involved in immune regulatory processes at the maternal-fetal interface (PubMed: <a href="#">19304799</a> , PubMed: <a href="#">23184984</a> , PubMed: <a href="#">29262349</a> ). In complex with B2M/beta-2 microglobulin binds a limited repertoire of nonamer self-peptides derived from intracellular proteins including histones and ribosomal proteins (PubMed: <a href="#">7584149</a> , PubMed: <a href="#">8805247</a> ). Peptide-bound HLA-G-B2M complex acts as a ligand for inhibitory/activating KIR2DL4, LILRB1 and LILRB2 receptors on uterine immune cells to promote fetal development while maintaining maternal- fetal tolerance (PubMed: <a href="#">16366734</a> , PubMed: <a href="#">19304799</a> , PubMed: <a href="#">20448110</a> , PubMed: <a href="#">23184984</a> , PubMed: <a href="#">27859042</a> , PubMed: <a href="#">29262349</a> ). Upon interaction with KIR2DL4 and LILRB1 receptors on decidual NK cells, it triggers NK cell senescence-associated secretory phenotype as a molecular switch to promote vascular remodeling and fetal growth in early pregnancy (PubMed: <a href="#">16366734</a> , PubMed: <a href="#">19304799</a> , PubMed: <a href="#">23184984</a> , PubMed: <a href="#">29262349</a> ). Through interaction with KIR2DL4

receptor on decidual macrophages induces pro-inflammatory cytokine production mainly associated with tissue remodeling (PubMed:[19304799](#)). Through interaction with LILRB2 receptor triggers differentiation of type 1 regulatory T cells and myeloid-derived suppressor cells, both of which actively maintain maternal-fetal tolerance (PubMed:[20448110](#), PubMed:[27859042](#)). May play a role in balancing tolerance and antiviral-immunity at maternal-fetal interface by keeping in check the effector functions of NK, CD8+ T cells and B cells (PubMed:[10190900](#), PubMed:[11290782](#), PubMed:[24453251](#)). Reprograms B cells toward an immune suppressive phenotype via LILRB1 (PubMed:[24453251](#)). May induce immune activation/suppression via intercellular membrane transfer (troglcytosis), likely enabling interaction with KIR2DL4, which resides mostly in endosomes (PubMed:[20179272](#), PubMed:[26460007](#)). Through interaction with the inhibitory receptor CD160 on endothelial cells may control angiogenesis in immune privileged sites (PubMed:[16809620](#)).

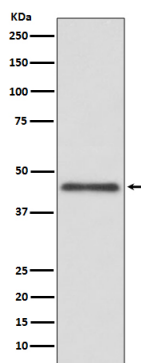
## Cellular Location

[Isoform 1]: Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane. Early endosome membrane [Isoform 2]: Cell membrane; Single-pass type I membrane protein [Isoform 4]: Cell membrane; Single-pass type I membrane protein [Isoform 6]: Secreted Cell projection, filopodium membrane. Note=HLA-G troglcytosis from extravillous trophoblast's filopodia occurs in the majority of decidual NK cells.

## Tissue Location

Expressed in adult eye (PubMed:1570318). Expressed in immune cell subsets including monocytes, myeloid and plasmacytoid dendritic cells and regulatory T cells (Tr1)(at protein level) (PubMed:20448110). Secreted by follicular dendritic cell and follicular helper T cells (PubMed:24453251) [Isoform 7]: Expressed in placenta, amniotic membrane, skin, cord blood and peripheral blood mononuclear cells

## Images



Western blot analysis of HLA G expression in Jurkat cell lysate.

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