

**HLA-G Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP51989**

**Specification**

---

**HLA-G Antibody - Product Information**

|                   |                          |
|-------------------|--------------------------|
| Application       | <b>WB, E</b>             |
| Primary Accession | <a href="#">P17693</a>   |
| Reactivity        | <b>Human, Mouse, Rat</b> |
| Host              | <b>Rabbit</b>            |
| Clonality         | <b>Polyclonal</b>        |
| Calculated MW     | <b>42 KDa</b>            |

**HLA-G Antibody - Additional Information**

**Gene ID** 3135

**Other Names**

HLA class I histocompatibility antigen, alpha chain G, HLA G antigen, MHC class I antigen G, HLA-G, HLA-60, HLAG

**Format**

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**HLA-G Antibody - 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: [19304799](http://www.uniprot.org/citations/19304799), PubMed: [23184984](http://www.uniprot.org/citations/23184984), PubMed: [29262349](http://www.uniprot.org/citations/29262349)). 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: [7584149](http://www.uniprot.org/citations/7584149), PubMed: [8805247](http://www.uniprot.org/citations/8805247)). 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: [16366734](http://www.uniprot.org/citations/16366734), PubMed: [19304799](http://www.uniprot.org/citations/19304799), PubMed: [20448110](http://www.uniprot.org/citations/20448110), PubMed: [23184984](http://www.uniprot.org/citations/23184984), PubMed: [27859042](http://www.uniprot.org/citations/27859042))

target="\_blank">27859042</a>, PubMed:<a href="http://www.uniprot.org/citations/29262349" target="\_blank">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="http://www.uniprot.org/citations/16366734" target="\_blank">16366734</a>, PubMed:<a href="http://www.uniprot.org/citations/19304799" target="\_blank">19304799</a>, PubMed:<a href="http://www.uniprot.org/citations/23184984" target="\_blank">23184984</a>, PubMed:<a href="http://www.uniprot.org/citations/29262349" target="\_blank">29262349</a>). Through interaction with KIR2DL4 receptor on decidual macrophages induces pro-inflammatory cytokine production mainly associated with tissue remodeling (PubMed:<a href="http://www.uniprot.org/citations/19304799" target="\_blank">19304799</a>). 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:<a href="http://www.uniprot.org/citations/20448110" target="\_blank">20448110</a>, PubMed:<a href="http://www.uniprot.org/citations/27859042" target="\_blank">27859042</a>). 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:<a href="http://www.uniprot.org/citations/10190900" target="\_blank">10190900</a>, PubMed:<a href="http://www.uniprot.org/citations/11290782" target="\_blank">11290782</a>, PubMed:<a href="http://www.uniprot.org/citations/24453251" target="\_blank">24453251</a>). Reprograms B cells toward an immune suppressive phenotype via LILRB1 (PubMed:<a href="http://www.uniprot.org/citations/24453251" target="\_blank">24453251</a>). May induce immune activation/suppression via intercellular membrane transfer (troglucytosis), likely enabling interaction with KIR2DL4, which resides mostly in endosomes (PubMed:<a href="http://www.uniprot.org/citations/20179272" target="\_blank">20179272</a>, PubMed:<a href="http://www.uniprot.org/citations/26460007" target="\_blank">26460007</a>). Through interaction with the inhibitory receptor CD160 on endothelial cells may control angiogenesis in immune privileged sites (PubMed:<a href="http://www.uniprot.org/citations/16809620" target="\_blank">16809620</a>).

### 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 troglucytosis 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

### HLA-G Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

### **HLA-G Antibody - Images**

### **HLA-G Antibody - Background**

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.

### **HLA-G Antibody - References**

Shukla H.,et al.Nucleic Acids Res. 18:2189-2189(1990).  
Geraghty D.E.,et al.Proc. Natl. Acad. Sci. U.S.A. 84:9145-9149(1987).  
Ishitani A.,et al.Submitted (APR-1992) to the EMBL/GenBank/DDBJ databases.  
Hampe A.,et al.DNA Seq. 10:263-299(1999).  
Shiina S.,et al.Submitted (SEP-1999) to the EMBL/GenBank/DDBJ databases.