

HLA-G antibody - C-terminal region

Rabbit Polyclonal Antibody

Catalog # AI14920

Product Information

Application	WB
Primary Accession	P17693
Other Accession	NM_002127 , NP_002118
Reactivity	Human, Pig, Bovine
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38224

Additional Information

Gene ID	3135
Alias Symbol	MHC-G
Other Names	HLA class I histocompatibility antigen, alpha chain G, HLA G antigen, MHC class I antigen G, HLA-G, HLA-6.0, HLAG
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-HLA-G antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	HLA-G antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

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 , PubMed: 23184984 , PubMed: 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 , PubMed: 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 , PubMed: 19304799 , PubMed: 20448110 , PubMed: 23184984 , PubMed: 27859042 ,

PubMed:[29262349](#)). 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:[16366734](#), PubMed:[19304799](#), PubMed:[23184984](#), PubMed:[29262349](#)). 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 (troglodytosis), 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 troglodytosis from extravillous trophoblast's filopodia occurs in the majority of decidual NK cells.

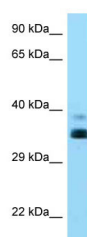
Tissue Location

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

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.

Images



WB Suggested Anti-HLA-G Antibody Titration: 1.0 µg/ml
Positive Control: RPMI-8226 Whole Cell.HLA-G is strongly supported by BioGPS gene expression data to be expressed in RPMI-8226

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.