

KO-Validated Anti-HLA-C Mouse Monoclonal Antibody
Mouse monoclonal antibody
Catalog # AGI2403**Specification****KO-Validated Anti-HLA-C Mouse Monoclonal Antibody - Product Information**

Application	WB
Primary Accession	P10321
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG
Calculated MW	Predicted, 41 kDa, observed, 40 kDa kDa
Gene Name	HLA-C
Aliases	HLA-C; Major Histocompatibility Complex, Class I, C; HLA Class I Histocompatibility Antigen, C Alpha Chain; HLA-JY3; D6S204; PSORS1; HLAC; Major Histocompatibility Antigen HLA-C; MHC Class I Antigen Heavy Chain HLA-C; Human Leukocyte Antigen-C Alpha Chain; Psoriasis Susceptibility 1; Human Leukocyte Antigen C; HLA-C Antigen; HLA-Cw; HLC-C; MHC Recombinant human HLA-C
Immunogen	

KO-Validated Anti-HLA-C Mouse Monoclonal Antibody - Additional Information

Gene ID	3107
Other Names	
HLA class I histocompatibility antigen, C alpha chain, HLA-C, HLA-Cw, Human leukocyte antigen C, HLA-C (HGNC:4933), HLAC	

KO-Validated Anti-HLA-C Mouse Monoclonal Antibody - Protein Information**Name** HLA-C ([HGNC:4933](#))**Synonyms** HLAC**Function**

Antigen-presenting major histocompatibility complex class I (MHCI) molecule with an important role in reproduction and antiviral immunity (PubMed:[11172028](http://www.uniprot.org/citations/11172028), PubMed:[20104487](http://www.uniprot.org/citations/20104487), PubMed:[20439706](http://www.uniprot.org/citations/20439706), PubMed:[20972337](http://www.uniprot.org/citations/20972337), PubMed:[24091323](http://www.uniprot.org/citations/24091323), PubMed:[28649982](http://www.uniprot.org/citations/28649982), PubMed:[29312307](http://www.uniprot.org/citations/29312307)). In complex

with B2M/beta 2 microglobulin displays a restricted repertoire of self and viral peptides and acts as a dominant ligand for inhibitory and activating killer immunoglobulin receptors (KIRs) expressed on NK cells (PubMed:16141329). In an allogeneic setting, such as during pregnancy, mediates interaction of extravillous trophoblasts with KIR on uterine NK cells and regulate trophoblast invasion necessary for placenta and overall fetal growth (PubMed:20972337, PubMed:24091323). During viral infection, may present viral peptides with low affinity for KIRs, impeding KIR-mediated inhibition through peptide antagonism and favoring lysis of infected cells (PubMed:20439706). Presents a restricted repertoire of viral peptides on antigen-presenting cells for recognition by alpha-beta T cell receptor (TCR) on HLA-C-restricted CD8-positive T cells, guiding antigen-specific T cell immune response to eliminate infected cells, particularly in chronic viral infection settings such as HIV-1 or CMV infection (PubMed:11172028, PubMed:20104487, PubMed:28649982). Both the peptide and the MHC molecule are recognized by TCR, the peptide is responsible for the fine specificity of antigen recognition and MHC residues account for the MHC restriction of T cells (By similarity). Typically presents intracellular peptide antigens of 9 amino acids that arise from cytosolic proteolysis via proteasome. Can bind different peptides containing allele-specific binding motifs, which are mainly defined by anchor residues at position 2 and 9. Preferentially displays peptides having a restricted repertoire of hydrophobic or aromatic amino acids (Phe, Ile, Leu, Met, Val and Tyr) at the C-terminal anchor (PubMed:25311805, PubMed:8265661).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass membrane protein

Tissue Location

Ubiquitous. Highly expressed in fetal extravillous trophoblasts in the decidua basalis (at protein level)

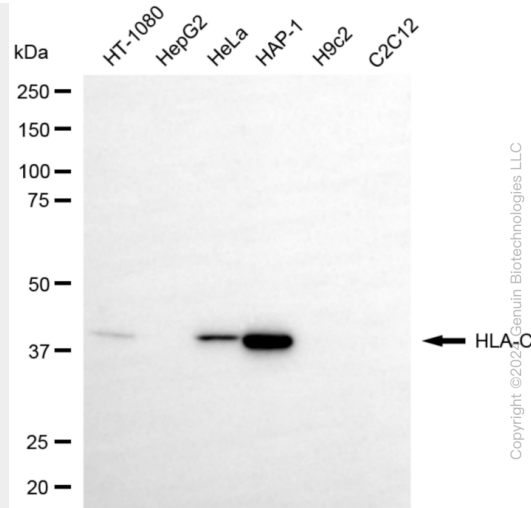
KO-Validated Anti-HLA-C Mouse Monoclonal Antibody - Protocols

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

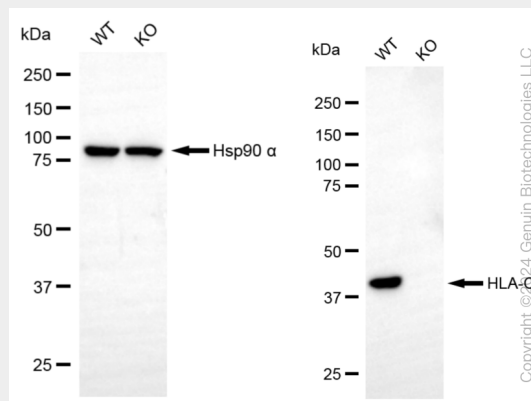
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KO-Validated Anti-HLA-C Mouse Monoclonal Antibody - Images





Western blotting analysis using anti-HLA-C antibody (Cat#AGI2403). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-HLA-C antibody (Cat#AGI2403, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-HLA-C antibody (Cat#AGI2403). HLA-C expression in wild type (WT) and HLA-C knockout (KO) 293T cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-HLA-C antibody (Cat#AGI2403, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.