

Product Name: KO-Validated HLA-C Mouse Monoclonal Antibody**Catalog #: KVA00163**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG
Clonality	Mouse mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000
Molecular Weight	Calculated MW: 40.6kDa

Antigen Information

Gene Name	HLA-C 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;
Alternative Names	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
Gene ID	3107.0
SwissProt ID	P10321
Immunogen	Recombinant protein of human HLA-C

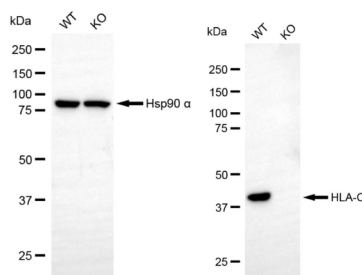
Background

HLA-C belongs to the HLA class I heavy chain paralogues. This class I molecule is a heterodimer consisting of a heavy chain and a light chain (beta-2 microglobulin). The heavy chain is anchored in the membrane. Class I molecules play a central role in the immune system by presenting peptides derived from endoplasmic reticulum lumen. They are expressed in nearly all cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domain, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exons 6 and 7 encode the cytoplasmic tail. Polymorphisms within exon 2 and exon 3 are responsible for the peptide binding specificity of each class one molecule. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. About 6000 HLA-C alleles have been described. The HLA system plays an important role in the occurrence and outcome of infectious diseases, including those caused by the malaria parasite, the human immunodeficiency virus (HIV), and the severe acute respiratory syndrome coronavirus (SARS-CoV). The structural spike and the nucleocapsid proteins of the novel coronavirus SARS-CoV-2, which causes coronavirus disease 2019 (COVID-19), are reported to contain multiple Class I epitopes with predicted HLA restrictions. Individual HLA genetic variation may help explain different immune responses to a virus across a population.[provided by RefSeq, Aug 2020]

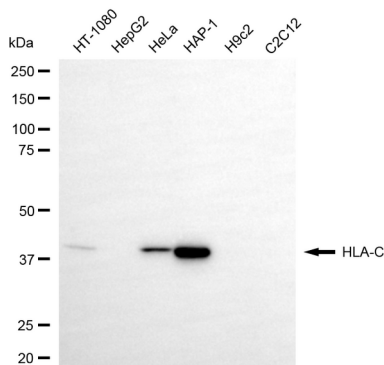
Research Area

Immunology, Microbiology

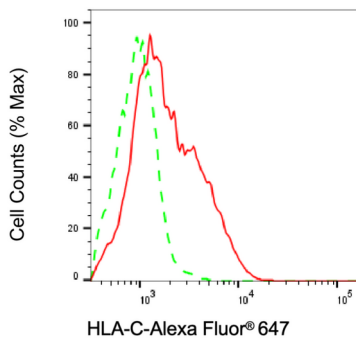
Image Data



Western blotting analysis using HLA-C antibody (KVA00163). 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 HLA-C antibody (KVA00163, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0631, 1:10,000) respectively.



Western blotting analysis using HLA-C antibody (KVA00163). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with HLA-C antibody (KVA00163, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



Flow cytometric analysis of HLA-C expression in HAP-1 cells using HLA-C antibody (KVA00163, 1:2,000). Green, isotype control; red, HLA-C.