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Anti-HLA-B Antibody

Catalog # AP95860

Product Information

Application	WB, IHC, FC, IF/IC
Primary Accession	P01889
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	40460

Additional Information

Gene ID	3106
Other Names	HLAB; HLA class I histocompatibility antigen, B-7 alpha chain; MHC class I antigen B*7
Target/Specificity	Recombinant fusion protein of human HLA-B expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200) IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

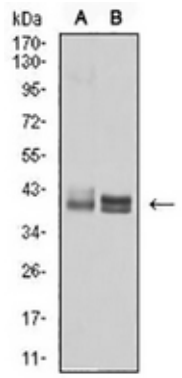
Name	HLA-B (HGNC:4932)
Synonyms	HLAB
Function	Antigen-presenting major histocompatibility complex class I (MHCI) molecule. In complex with B2M/beta 2 microglobulin displays primarily viral and tumor-derived peptides on antigen-presenting cells for recognition by alpha-beta T cell receptor (TCR) on HLA-B-restricted CD8-positive T cells, guiding antigen-specific T cell immune response to eliminate infected or transformed cells (PubMed:23209413, PubMed:25808313, PubMed:29531227, PubMed:9620674). May also present self-peptides derived from the signal sequence of secreted or membrane proteins, although T cells specific for these peptides are usually inactivated to prevent autoreactivity (PubMed:18991276, PubMed:7743181). 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 (PubMed:24600035, PubMed:29531227, PubMed:9620674). Typically presents intracellular peptide antigens of 8 to 13 amino acids that arise from cytosolic proteolysis via constitutive proteasome

and IFNG-induced immunoproteasome (PubMed:23209413). Can bind different peptides containing allele-specific binding motifs, which are mainly defined by anchor residues at position 2 and 9 (PubMed:25808313, PubMed:29531227).

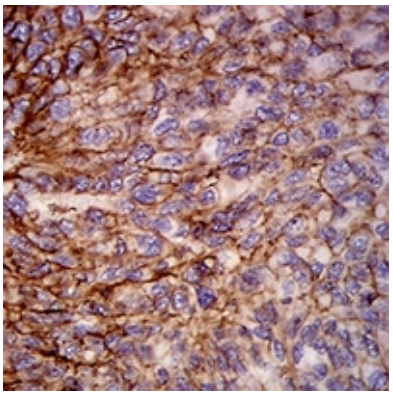
Cellular Location

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

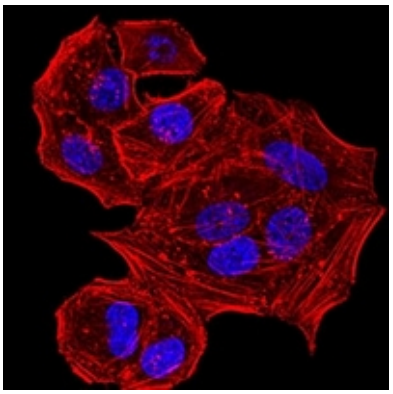
Images



Western blot analysis of HLA-B expression in Ramos (A), A431 (B) whole cell lysates. (Predicted band size: 41 kD; Observed band size: 41 kD)

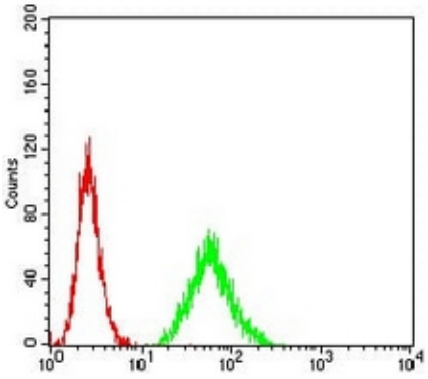


Immunohistochemical analysis of HLA-B staining in human ovarian cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of HLA-B staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Flow cytometric analysis of MCF7 cells using Anti-HLA-B Antibody (green) and negative control (red).



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