

KD-Validated Anti-MHC class 1 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1048**Specification****KD-Validated Anti-MHC class 1 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P04439
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 41 kDa, observed, 41 kDa kDa
Gene Name	HLA-A
Aliases	HLA-A; Major Histocompatibility Complex, Class I, A; HLA Class I Histocompatibility Antigen, A Alpha Chain; HLAA; HLA Class I Histocompatibility Antigen, A-1 Alpha Chain; MHC Class I Antigen HLA-A Heavy Chain; Leukocyte Antigen Class I-A; Human Leukocyte Antigen A
Immunogen	A synthesized peptide derived from human MHC class 1

KD-Validated Anti-MHC class 1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	3105
Other Names	
HLA class I histocompatibility antigen, A alpha chain, Human leukocyte antigen A, HLA-A, HLA-A (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=4931) (HGNC:4931), HLAA	

KD-Validated Anti-MHC class 1 Rabbit Monoclonal Antibody - Protein Information**Name** HLA-A ([HGNC:4931](#))**Synonyms** HLAA**Function**

Antigen-presenting major histocompatibility complex class I (MHC I) 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-A-restricted CD8-positive T cells, guiding antigen-specific T cell immune response to eliminate infected or transformed cells (PubMed: <http://www.uniprot.org/citations/10449296> target="_blank">10449296, PubMed: <http://www.uniprot.org/citations/12138174> target="_blank">12138174, PubMed: <http://www.uniprot.org/citations/12393434> target="_blank">12393434, PubMed: <http://www.uniprot.org/citations/1402688> target="_blank">1402688, PubMed: <http://www.uniprot.org/citations/15893615> target="_blank">15893615, PubMed: <http://www.uniprot.org/citations/17189421>

target="_blank">17189421, PubMed:19543285, PubMed:21498667, PubMed:24192765, PubMed:24395804, PubMed:2456340, PubMed:2784196, PubMed:28250417, PubMed:7504010, PubMed:7694806, PubMed:9862734). 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:25880248, PubMed:7506728, PubMed:7679507). 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:12796775, PubMed:18275829, PubMed:19542454, PubMed:28250417). Typically presents intracellular peptide antigens of 8 to 13 amino acids that arise from cytosolic proteolysis via IFNG-induced immunoproteasome or via endopeptidase IDE/insulin-degrading enzyme (PubMed:17079320, PubMed:17189421, PubMed:20364150, PubMed:26929325, PubMed:27049119). Can bind different peptides containing allele- specific binding motifs, which are mainly defined by anchor residues at position 2 and 9 (PubMed:7504010, PubMed:9862734).

Cellular Location

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

Tissue Location

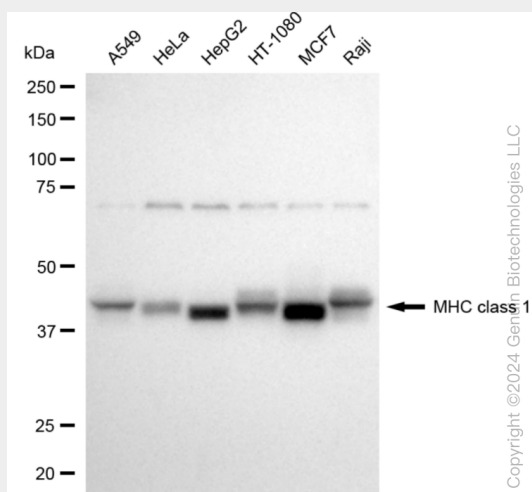
Ubiquitous..

KD-Validated Anti-MHC class 1 Rabbit Monoclonal Antibody - Protocols

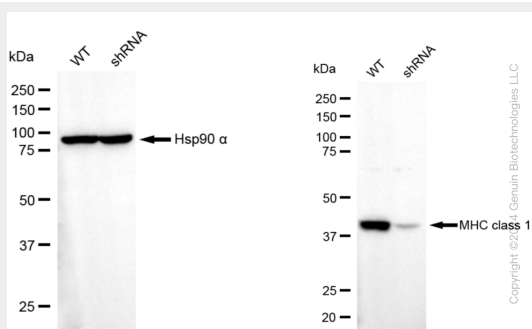
Provided below are standard protocols that you may find useful for product applications.

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

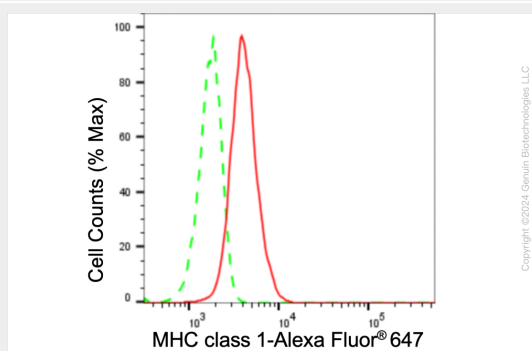
KD-Validated Anti-MHC class 1 Rabbit Monoclonal Antibody - Images



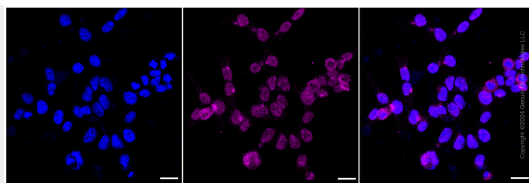
Western blotting analysis using anti-MHC class 1 antibody (Cat#AGI1048). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-MHC class 1 antibody (Cat#AGI1048, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-MHC class 1 antibody (Cat#AGI1048). MHC class 1 expression in wild type (WT) and HLA-A shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-MHC class 1 antibody (Cat#AGI1048, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of MHC class 1 expression in HeLa cells using MHC class 1 antibody (Cat#AGI1048, 1:2,000). Green, isotype control; red, MHC class 1.



Immunocytochemical staining of HAP-1 cells with anti-MHC class 1 antibody (Cat#AGI1048, 1:1,000). Nuclei were stained blue with DAPI; MHC class 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain:High. Scale bar, 20 μ m.