10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-MHC class 1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1048

Product Information

Application	WB, FC, ICC
Primary Accession	P04439
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB6040
Calculated MW	40841
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

Additional Information

Gene ID	3105
Other Names	HLA class I histocompatibility antigen, A alpha chain, Human leukocyte antigen A, HLA-A, HLA-A (HGNC:4931), HLAA

Protein Information

Name	HLA-A (HGNC:4931)
Synonyms	HLAA
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-A-restricted CD8-positive T cells, guiding antigen-specific T cell immune response to eliminate infected or transformed cells (PubMed:10449296, PubMed:12138174, PubMed:12393434, PubMed:1402688, PubMed:15893615, PubMed: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..

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