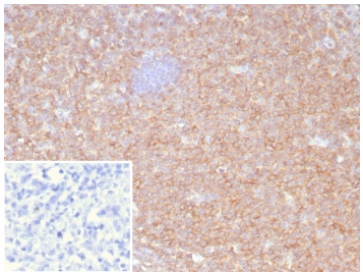
HLA-B Antibody JOAN-1 / MHC Class I HLA-B Antibody [clone JOAN-1] (V2575)

Catalog No.	Formulation	Size
V2575-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2575-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2575SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

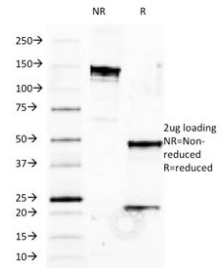
Citations (9)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG3, kappa
Clone Name	JOAN-1
Purity	Protein G affinity chromatography
UniProt	P03989
Localization	Cell surface
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This HLA-B Antibody JOAN-1 / MHC Class I HLA-B Antibody is available for research use only.



HLA-B Antibody JOAN-1 in Human Tonsil IHC. Immunohistochemistry testing of clone JOAN-1 in FFPE human tonsil tissue. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before testing. HLA-B immunoreactivity is observed in a population of cells distributed throughout the tonsillar lymphoid tissue, with prominent cell-surface staining.



Purified HLA-B Antibody JOAN-1 SDS-PAGE. Electrophoretic analysis of purified, BSA-free clone JOAN-1 under non-reducing and reducing conditions. The non-reduced antibody shows the intact immunoglobulin species, while reduction produces the expected immunoglobulin heavy and light chain components, supporting the integrity and purity of the antibody preparation.

Description

HLA-B Antibody JOAN-1 / MHC Class I HLA-B Antibody recognizes human leukocyte antigen B, a highly polymorphic member of the classical major histocompatibility complex class I family. HLA-B molecules participate in immune surveillance by presenting peptides derived primarily from intracellular proteins to CD8-positive T lymphocytes. Recognition of these peptide-HLA complexes enables cytotoxic T cells to identify cells displaying foreign or altered proteins, making HLA-B important in antiviral immunity, tumor immunology, transplantation and adaptive immune responses.

HLA-B is a transmembrane glycoprotein that forms a heterodimer with beta-2 microglobulin. The HLA-B heavy chain contains alpha-1, alpha-2 and alpha-3 extracellular domains, a transmembrane region and a cytoplasmic tail. The alpha-1 and alpha-2 domains form the peptide-binding groove, where short peptides are displayed for recognition by T cell receptors. Extensive polymorphism within the HLA-B locus alters the structure of this groove and influences the repertoire of peptides that individual HLA-B molecules can present.

HLA-B molecules also contribute to innate immune regulation through interactions with receptors expressed by natural killer cells. Depending on the HLA-B allele and associated sequence motifs, these interactions can influence inhibitory or activating signals that help determine whether a target cell is tolerated or eliminated. Variation in HLA-B has therefore been investigated in infectious disease, autoimmunity, cancer immune surveillance, transplantation compatibility and other areas in which recognition of cell-surface HLA molecules influences immune function.

Clone JOAN-1 has been used extensively in published research as a reagent for studying HLA-B expression. Historically, JOAN-1 was characterized as recognizing an intralocus determinant present on a subset of HLA-B locus-encoded products. More recent systematic specificity studies have refined this characterization, demonstrating broad HLA-B reactivity while identifying some inter-locus reactivity with HLA-A and HLA-C molecules and incomplete recognition of all HLA-B variants. These findings are relevant when JOAN-1 is used in experiments requiring strict discrimination among individual HLA class I loci.

Clone JOAN-1 is a mouse monoclonal antibody generated against human peripheral blood lymphocytes. NSJ Bioreagents provides this HLA-B Antibody for research into HLA expression, antigen presentation and immune recognition. An MHC Class I HLA-B Antibody can support investigation of HLA-B biology and the mechanisms connecting peptide presentation with T cell and natural killer cell responses.

Explore our Immunology Antibodies page for additional reagents targeting HLA molecules, antigen presentation and adaptive immune recognition.

Application Notes

Optimal dilution of the HLA-B Antibody JOAN-1 / MHC Class I HLA-B Antibody should be determined by the researcher.

Immunogen

Normal human peripheral blood lymphocytes were used as the immunogen for the HLA-B Antibody JOAN-1.

Storage

Store the HLA-B Antibody JOAN-1 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

HLA-B antibody, HLAB antibody, Human Leukocyte Antigen B antibody, MHC Class I HLA-B antibody, HLA Class I antibody

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