

HLA-B monoclonal antibody, clone SPM420

Catalog # MAB13074

Size 100 ug

Specification

Product Description Mouse monoclonal antibody raised against native human HLA-B.

Immunogen Normal human peripheral blood lymphocytes.

Host Mouse

Theoretical MW (kDa) 45

Reactivity Human

Specificity HLA-B 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 the endoplasmic reticulum lumen. They are expressed in nearly all cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon 1 encodes the leader peptide, exon 2 and 3 encode the alpha1 and alpha2 domains, 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 I molecule. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. Hundreds of HLA-B alleles have been described.

Form Liquid

Purification Protein A/G purification

Isotype IgG3, kappa

Recommend Usage Flow Cytometry (0.5-1 ug/10⁶ cells in 0.1 mL)
Immunofluorescence (0.5-1 ug/mL)
The optimal working dilution should be determined by the end user.

Storage Buffer In 10 mM PBS.

Storage Instruction Store at -20 to -80°C.
Aliquot to avoid repeated freezing and thawing.

Applications

- Immunofluorescence
- Flow Cytometry

Gene Info — HLA-B

Entrez GeneID [3106](#)

Protein Accession# [P01889](#)

Gene Name HLA-B

Gene Alias AS, HLA-B-7301, HLA-B73, HLAB, HLAC, SPDA1

Gene Description major histocompatibility complex, class I, B

Omim ID [106300](#) [142830](#) [608579](#)

Gene Ontology [Hyperlink](#)

Gene Summary

HLA-B 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 the endoplasmic reticulum lumen. They are expressed in nearly all cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon 1 encodes the leader peptide, exon 2 and 3 encode the alpha1 and alpha2 domains, 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. Hundreds of HLA-B alleles have been described. [provided by RefSeq]

Other Designations

HLA class I histocompatibility antigen, B alpha chain|HLA class I histocompatibility antigen, B-7 alpha chain|HLA class I histocompatibility antigen, Cw-5 alpha chain|HLA-B alpha chain (HLA-B*7301)|MHC Class I HLA heavy chain|MHC HLA-B cell surface glycop

Pathway

- [Allograft rejection](#)
- [Antigen processing and presentation](#)

- [Autoimmune thyroid disease](#)
- [Cell adhesion molecules \(CAMs\)](#)
- [Endocytosis](#)
- [Graft-versus-host disease](#)
- [Natural killer cell mediated cytotoxicity](#)
- [Type I diabetes mellitus](#)

Disease

- [Abortion](#)
- [Abruptio Placentae](#)
- [Achievement](#)
- [Acquired Immunodeficiency Syndrome](#)
- [Acute Disease](#)
- [Addison Disease](#)
- [Adenocarcinoma](#)
- [Adenovirus Infections](#)
- [Adrenal hyperplasia](#)
- [Agranulocytosis](#)
- [AIDS-Related Opportunistic Infections](#)
- [Alcoholism](#)
- [Alopecia Areata](#)
- [Alveolar Bone Loss](#)
- [Anemia](#)
- [Aortic Aneurysm](#)
- [Aortic Diseases](#)
- [Arterial Occlusive Diseases](#)

- [Arthritis](#)
- [Asthma](#)
- [Atherosclerosis](#)
- [Autistic Disorder](#)
- [Autoimmune Diseases](#)
- [Autonomic Nervous System Diseases](#)
- [Barrett Esophagus](#)
- [Behcet Syndrome](#)
- [Biliary Atresia](#)
- [Bipolar Disorder](#)
- [Birth Weight](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Bronchiectasis](#)
- [Bronchiolitis](#)
- [Brucellosis](#)
- [Calcinosis](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Celiac Disease](#)
- [Cerebrovascular Accident](#)
- [Cervical Intraepithelial Neoplasia](#)
- [Chagas Cardiomyopathy](#)
- [Chagas Disease](#)
- [Chlamydomyophila Infections](#)

- [Cholangitis](#)
- [Choroidal Neovascularization](#)
- [Chronic Disease](#)
- [Churg-Strauss Syndrome](#)
- [Colitis](#)
- [Common Variable Immunodeficiency](#)
- [Complex Regional Pain Syndromes](#)
- [Conjunctivitis](#)
- [Connective Tissue Diseases](#)
- [Coronary Aneurysm](#)
- [Coronary Artery Disease](#)
- [Crohn Disease](#)
- [Cystic fibrosis](#)
- [Cytomegalovirus Infections](#)
- [Cytomegalovirus Retinitis](#)
- [Dengue](#)
- [Dermatitis](#)
- [Dermatomyositis](#)
- [Diabetes Mellitus](#)
- [Disease](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Drug Eruptions](#)
- [Drug Hypersensitivity](#)
- [Drug Toxicity](#)
- [Duchenne muscular dystrophy](#)

- [Ductus Arteriosus](#)
- [Duodenal Ulcer](#)
- [Dystonia](#)
- [Edema](#)
- [Encephalitis](#)
- [Encephalomyelitis](#)
- [Endometriosis](#)
- [Epidermal Necrolysis](#)
- [Epilepsy](#)
- [Epstein-Barr Virus Infections](#)
- [Esophageal Neoplasms](#)
- [Exanthema](#)
- [Eye Diseases](#)
- [Eye Infections](#)
- [Fatigue Syndrome](#)
- [Fibrosis](#)
- [Gastritis](#)
- [Gastroesophageal Reflux](#)
- [Gastrointestinal Diseases](#)
- [Genetic Diseases](#)
- [Genetic Predisposition to Disease](#)
- [Gingival Hemorrhage](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Glomerulonephritis](#)

- [Graft vs Host Disease](#)
- [Graves Disease](#)
- [Head and Neck Neoplasms](#)
- [Heart Failure](#)
- [Helicobacter Infections](#)
- [Hemangioma](#)
- [Hematologic Diseases](#)
- [Hematologic Neoplasms](#)
- [Hemochromatosis](#)
- [Hemoglobinuria](#)
- [Hemophilia A](#)
- [Hemophilia B](#)
- [Hemorrhagic Fever with Renal Syndrome](#)
- [Hemosiderosis](#)
- [Hepatitis](#)
- [Hepatitis A](#)
- [Hepatitis B](#)
- [Hepatitis C](#)
- [Hepatitis D](#)
- [Hereditary hemochromatosis](#)
- [Herpes Zoster](#)
- [Histoplasmosis](#)
- [HIV Infections](#)
- [HIV Seropositivity](#)
- [HTLV-I Infections](#)
- [Hyperplasia](#)

- [Hypersensitivity](#)
- [Hypertension](#)
- [IgA Deficiency](#)
- [IgG Deficiency](#)
- [Infant](#)
- [Infection](#)
- [Infectious Mononucleosis](#)
- [Inflammation](#)
- [Inflammatory Bowel Diseases](#)
- [Iron Overload](#)
- [Joint Diseases](#)
- [Keloid](#)
- [Kidney Diseases](#)
- [Kidney Failure](#)
- [Knee Injuries](#)
- [Lambert-Eaton Myasthenic Syndrome](#)
- [Leprosy](#)
- [Leptospirosis](#)
- [Leukemia](#)
- [Leukemia-Lymphoma](#)
- [Lipodystrophy](#)
- [Liver Cirrhosis](#)
- [Lung carcinoma](#)
- [Lung Diseases](#)
- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)

- [Lymphatic Metastasis](#)
- [Lymphoma](#)
- [Lymphoproliferative Disorders](#)
- [Macular Degeneration](#)
- [Malaria](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Moyamoya Disease](#)
- [Mucocutaneous Lymph Node Syndrome](#)
- [Multiple Sclerosis](#)
- [Muscular Dystrophy](#)
- [Myasthenia Gravis](#)
- [Mycobacterium avium-intracellulare Infection](#)
- [Myelodysplastic Syndromes](#)
- [Myositis](#)
- [Nasal Polyps](#)
- [Nasopharyngeal Neoplasms](#)
- [Neoplasm Invasiveness](#)
- [Neoplasms](#)
- [Neovascularization](#)
- [Nephrosis](#)
- [Neuralgia](#)
- [Neuroblastoma](#)
- [Neuromyelitis Optica](#)
- [Nut Hypersensitivity](#)
- [Obesity](#)

- [Occupational Diseases](#)
- [Optic Neuritis](#)
- [Oral Submucous Fibrosis](#)
- [Osteoarthritis](#)
- [Osteoporosis](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Pancreatitis](#)
- [Papilloma](#)
- [Papillomavirus Infections](#)
- [Paraneoplastic Syndromes](#)
- [Paraparesis](#)
- [Paroxysmal nocturnal hemoglobinuria](#)
- [Pars Planitis](#)
- [Pemphigus](#)
- [Penile Induration](#)
- [Periodontal Attachment Loss](#)
- [Periodontitis](#)
- [Photosensitivity Disorders](#)
- [Pityriasis Rosea](#)
- [Polymyositis](#)
- [Porphyria](#)
- [Porphyria Cutanea Tarda](#)
- [Postoperative Complications](#)

- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Prostate cancer](#)
- [Proteinuria](#)
- [Psoriasis](#)
- [Psychotic Disorders](#)
- [Pulmonary Disease](#)
- [Pulmonary Embolism](#)
- [Pulmonary Fibrosis](#)
- [Purpura](#)
- [Q Fever](#)
- [Recurrence](#)
- [Respiratory Tract Infections](#)
- [Retinal Diseases](#)
- [Retroperitoneal Fibrosis](#)
- [Rheumatic Diseases](#)
- [Rheumatic Heart Disease](#)
- [Salivary Gland Diseases](#)
- [Sarcoidosis](#)
- [Sarcoma](#)
- [Schizophrenia](#)
- [Scleroderma](#)
- [Severe Acute Respiratory Syndrome](#)
- [Skin Diseases](#)
- [Skin Neoplasms](#)
- [Skin Ulcer](#)

- [Small Cell Lung Carcinoma](#)
- [Spinal Cord Diseases](#)
- [Spondylarthritis](#)
- [Spondylarthropathies](#)
- [Spondylitis](#)
- [Stevens-Johnson Syndrome](#)
- [Stomach Neoplasms](#)
- [Stomatitis](#)
- [Substance Abuse](#)
- [Syndrome](#)
- [Synovitis](#)
- [Takayasu Arteritis](#)
- [Temporal Arteritis](#)
- [Temporomandibular Joint Disorders](#)
- [Tenosynovitis](#)
- [Thromboembolism](#)
- [Thrombophlebitis](#)
- [Thymoma](#)
- [Thymus Neoplasms](#)
- [Thyroiditis](#)
- [Trachoma](#)
- [Translocation](#)
- [Tuberculosis](#)
- [Tumor Virus Infections](#)
- [Urticaria](#)
- [Uterine Cervical Neoplasms](#)

- [Uveitis](#)
- [Uveomeningoencephalitic Syndrome](#)
- [Vasculitis](#)
- [Venous Thrombosis](#)
- [Viremia](#)
- [Vitiligo](#)