HLA Class I monoclonal antibody, clone MEM-123

Catalog # MAB3854 Size 100 ug

Specification

Product Description	Mouse monoclonal antibody raised against native HLA Class I.
Immunogen	Native purified HLA Class I from COS-7 African green monkey kidney cells.
Host	Mouse
Reactivity	Human
Specificity	This antibody reacts with all human classical MHC Class I molecules (major histocompatibility complex) in native cell-surface forms as well as with human HLA-G cDNA transfected cells. MHC Class I molecules (MHC Class Ia) are expressed on the surface of all human cell types. This antibody completely blocks binding of classical W6/32 to surface-expressed HLA-G, but does not cross-blocks the antibody MEM-G/9.
Form	Liquid
Purification	Protein A affinity chromatography
Isotype	IgG3
Recommend Usage	ELISA Flow Cytometry Immunoprecipitation The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (15 mM sodium azide).
Storage Instruction	Store at 4°C. Do not freeze.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

- Immunoprecipitation

- Enzyme-linked Immunoabsorbent Assay
- Flow Cytometry

Gene Info — HLA-A

Entrez GeneID	3105
Gene Name	HLA-A
Gene Alias	HLAA
Gene Description	major histocompatibility complex, class I, A
Omim ID	106300 142800 608579
Gene Ontology	Hyperlink
Gene Summary	HLA-A 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 i n the membrane. Class I molecules play a central role in the immune system by presenting peptid es derived from the endoplasmic reticulum lumen. They are expressed in nearly all cells. The heav y chain is approximately 45 kDa and its gene contains 8 exons. Exon 1 encodes the leader peptid e, exons 2 and 3 encode the alpha1 and alpha2 domains, which both bind the peptide, exon 4 en codes 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 bind ing specificity of each class one molecule. Typing for these polymorphisms is routinely done for b one marrow and kidney transplantation. Hundreds of HLA-A alleles have been described. [provid ed by RefSeq
Other Designations	HLA class I histocompatibility antigen, A-23 alpha chain|MHC class I antigen HLA-A heavy chain| MHC leukocyte antigen|OTTHUMP00000161059|antigen presenting molecule|leucocyte antigen c lass I|leukocyte antigen class I-A

Gene Info — HLA-E

Entrez GeneID	3133
Gene Name	HLA-E
Gene Alias	DKFZp686P19218, EA1.2, EA2.1, HLA-6.2, MHC, QA1
Gene Description	major histocompatibility complex, class I, E
Omim ID	143010

Gene Ontology	Hyperlink
Gene Summary	HLA-E 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 i n the membrane. HLA-E binds a restricted subset of peptides derived from the leader peptides of other class I molecules. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domains, wh ich both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembran e region, and exons 6 and 7 encode the cytoplasmic tail. [provided by RefSeq
Other Designations	HLA class I histocompatibility antigen, E alpha chain|MHC HLA-E alpha-1|MHC HLA-E alpha-2.1| MHC class I antigen|OTTHUMP00000029214|lymphocyte antigen

Gene Info — HLA-F

Entrez GeneID	3134
Gene Name	HLA-F
Gene Alias	CDA12, HLA-5.4, HLA-CDA12, HLAF
Gene Description	major histocompatibility complex, class I, F
Omim ID	143110
Gene Ontology	Hyperlink
Gene Summary	This gene belongs to the HLA class I heavy chain paralogues. It encodes a non-classical heavy ch ain that forms a heterodimer with a beta-2 microglobulin light chain, with the heavy chain anchored in the membrane. Unlike most other HLA heavy chains, this molecule is localized in the endoplas mic reticulum and Golgi apparatus, with a small amount present at the cell surface in some cell typ es. It contains a divergent peptide-binding groove, and is thought to bind a restricted subset of pe ptides for immune presentation. This gene exhibits few polymorphisms. Multiple transcript variant s encoding different isoforms have been found for this gene. These variants lack a coding exon fo und in transcripts from other HLA paralogues due to an altered splice acceptor site, resulting in a shorter cytoplasmic domain. [provided by RefSeq
Other Designations	HLA class I molecule|MHC class I antigen|MHC class Ib antigen|OTTHUMP00000109209|OTTHU MP00000109210|OTTHUMP00000109211|leukocyte antigen F

Gene Info — HLA-G

Entrez GeneID	3135
Gene Name	HLA-G
Gene Alias	MHC-G

Gene Description	major histocompatibility complex, class I, G
Omim ID	142871 600807
Gene Ontology	Hyperlink
Gene Summary	HLA-G 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 i n the membrane. HLA-G is expressed on fetal derived placental cells. The heavy chain is approxi mately 45 kDa and its gene contains 8 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domain, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exon 6 encodes the cytoplasmic tail. [pr ovided by RefSeq
Other Designations	HLA class I molecule|HLA-G histocompatibility antigen, class I, G|MHC class I antigen|OTTHUMP 00000039485|b2 microglobulin

Pathway

- Allograft rejection
- Allograft rejection
- Allograft rejection
- Allograft rejection
- Antigen processing and presentation
- Antigen processing and presentation
- Antigen processing and presentation
- Antigen processing and presentation
- Autoimmune thyroid disease
- Autoimmune thyroid disease
- Autoimmune thyroid disease
- Autoimmune thyroid disease
- Cell adhesion molecules (CAMs)
- Cell adhesion molecules (CAMs)
- Cell adhesion molecules (CAMs)

- Cell adhesion molecules (CAMs)
- Endocytosis
- Endocytosis
- Endocytosis
- Endocytosis
- Graft-versus-host disease
- Graft-versus-host disease
- Graft-versus-host disease
- Graft-versus-host disease
- Natural killer cell mediated cytotoxicity
- Natural killer cell mediated cytotoxicity
- Natural killer cell mediated cytotoxicity
- Natural killer cell mediated cytotoxicity
- Type I diabetes mellitus
- Type I diabetes mellitus
- Type I diabetes mellitus
- Type I diabetes mellitus

Disease

- Abortion
- Abortion
- Abortion
- Abruptio Placentae
- Acquired Immunodeficiency Syndrome
- Acute Disease
- Acute Disease

- Addison Disease
- Adenocarcinoma
- Adenovirus Infections
- Agranulocytosis
- AIDS-Related Opportunistic Infections
- Alcoholism
- Alopecia Areata
- Alveolar Bone Loss
- Alzheimer disease
- Anemia
- Anemia
- Anemia
- Aortic Aneurysm
- Aortic Diseases
- Arterial Occlusive Diseases
- Arthritis
- Arthritis
- Asthma
- Asthma
- Atherosclerosis
- Autistic Disorder
- Autoimmune Diseases
- Autoimmune Diseases
- Autonomic Nervous System Diseases
- Bacterial Infections
- Behcet Syndrome

- Behcet Syndrome
- Behcet Syndrome
- Biliary Atresia
- Bipolar Disorder
- Birth Weight
- Birth Weight
- Bone Marrow Diseases
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Bronchial Hyperreactivity
- Bronchiectasis
- Bronchiolitis
- Calcinosis
- Carcinoma
- Carcinoma
- Carcinoma
- Carcinoma
- Cardiomyopathy
- Cardiovascular Diseases
- Cardiovascular Diseases
- Celiac Disease
- Cervical Intraepithelial Neoplasia
- Cervical Intraepithelial Neoplasia
- Chagas Cardiomyopathy
- Chagas Disease

- Chlamydophila Infections
- Cholangitis
- Cholestasis
- Chorioamnionitis
- Chorioamnionitis
- Choroidal Neovascularization
- Chronic Disease
- Churg-Strauss Syndrome
- Colitis
- Colitis
- Common Variable Immunodeficiency
- Complex Regional Pain Syndromes
- Conjunctivitis
- Connective Tissue Diseases
- Corneal Dystrophies
- Coronary Aneurysm
- Coronary Aneurysm
- Coronary Aneurysm
- Coronary Artery Disease
- Coronary Disease
- Crohn Disease
- Crohn Disease
- Cytomegalovirus Infections
- Cytomegalovirus Infections
- Cytomegalovirus Infections

- Cytomegalovirus Retinitis
- Dengue
- Dermatitis
- Diabetes Complications
- Diabetes Mellitus
- Diabetes Mellitus
- Disease Progression
- Disease Progression
- Disease Susceptibility
- Disease Susceptibility
- Drug Eruptions
- Drug Hypersensitivity
- Drug Toxicity
- Drug-Induced Liver Injury
- Duchenne muscular dystrophy
- Ductus Arteriosus
- Duodenal Ulcer
- Dystonia
- Eclampsia
- Edema
- Encephalitis
- Encephalomyelitis
- Endometriosis
- Enterovirus Infections
- Epidermal Necrolysis
- Epilepsy
- Epstein-Barr Virus Infections

- Esophageal Neoplasms
- Exanthema
- Eye Diseases
- Eye Infections
- Fetal Diseases
- Fetal Membranes
- Fetal Membranes
- Fibrosis
- Gastritis
- Gastrointestinal Diseases
- Gastrointestinal Diseases
- Genetic Diseases
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Gingival Hemorrhage
- Glioblastoma
- Glioma
- Glomerulonephritis
- Graft vs Host Disease
- Graft vs Host Disease
- 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
- Hemosiderosis
- Hepatitis
- Hepatitis
- Hepatitis A
- Hepatitis B
- Hepatitis C
- Hepatitis C
- Hepatitis D
- Hereditary hemochromatosis
- Herpes Zoster
- Herpesviridae Infections
- Histoplasmosis
- HIV Infections
- HIV Infections
- HIV Infections
- HIV Seropositivity
- Hodgkin Disease
- HTLV-I Infections

- Hyperplasia
- Hypersensitivity
- Hypersensitivity
- Hypertension
- IgA Deficiency
- IgG Deficiency
- Infant
- Infection
- Infection
- Infectious Mononucleosis
- Infertility
- Inflammation
- Iron Overload
- Joint Diseases
- Keloid
- Kidney Diseases
- Kidney Failure
- Knee Injuries
- Leprosy
- Leptospirosis
- Leukemia
- Leukemia-Lymphoma
- Lipodystrophy
- Liver Cirrhosis
- Lung carcinoma
- Lung Neoplasms

- Lupus Erythematosus
- Lupus Erythematosus
- Lupus Erythematosus
- Lupus Erythematosus
- Lymphatic Metastasis
- Lymphoma
- Lymphoproliferative Disorders
- Macular Degeneration
- Malaria
- Malignant melanoma
- Melanoma
- Meningeal Neoplasms
- Meningioma
- Menkes syndrome
- Metabolic Syndrome X
- Mucocutaneous Lymph Node Syndrome
- Mucocutaneous Lymph Node Syndrome
- Mucocutaneous Lymph Node Syndrome

- Multiple Sclerosis
- Multiple Sclerosis
- Multiple Sclerosis
- Muscular Dystrophy
- Myasthenia Gravis
- Mycobacterium avium-intracellulare Infection
- Myelodysplastic Syndromes

- Myositis
- Nasal Polyps
- Nasopharyngeal Neoplasms
- Nasopharyngeal Neoplasms
- Nasopharyngeal Neoplasms
- Neoplasm Invasiveness
- Neoplasms
- Neoplasms
- Neovascularization
- Nephrosis
- Nephrotic Syndrome
- Neuralgia
- Neuroblastoma
- Neuromyelitis Optica
- Nut Hypersensitivity
- Obesity
- Obstetric Labor
- Obstetric Labor
- Occupational Diseases
- Optic Neuritis
- Oral Submucous Fibrosis
- Osteoporosis
- Ovarian cancer
- Ovarian Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms

- Pancreatitis
- Papilloma
- Papillomavirus Infections
- Papillomavirus Infections
- Paraneoplastic Syndromes
- Paraparesis
- Paroxysmal nocturnal hemoglobinuria
- Pars Planitis
- Pemphigus
- Penile Induration
- Periodontal Attachment Loss
- Periodontitis
- Photosensitivity Disorders
- Photosensitivity Disorders
- Pityriasis Rosea
- Pneumonia
- Polycystic Ovary Syndrome
- Porphyria
- Porphyria Cutanea Tarda
- Postoperative Complications
- Postoperative Complications
- Pre-Eclampsia
- Pre-Eclampsia
- Pre-Eclampsia
- Pregnancy Complications
- Pregnancy Complications

- Premature Birth
- Premature Birth
- Prenatal Exposure Delayed Effects
- Prostate cancer
- Prostatic Neoplasms
- Proteinuria
- Psoriasis
- Psoriasis
- Psychotic Disorders
- Pulmonary Disease
- Pulmonary Embolism
- Purpura
- Purpura
- Recurrence
- Respiratory Tract Infections
- Retroperitoneal Fibrosis
- Rheumatic Diseases
- Rheumatic Heart Disease
- Salivary Gland Diseases
- Sarcoidosis
- Sarcoidosis
- Sarcoma
- Schizophrenia
- Severe Acute Respiratory Syndrome
- Sexually Transmitted Diseases
- Skin Diseases

- Skin Neoplasms
- Small Cell Lung Carcinoma
- Spinal Cord Diseases
- Spondylarthritis
- Spondylarthropathies
- Spondylitis
- Spondylitis
- Stevens-Johnson Syndrome
- Stomach Neoplasms
- Stomatitis
- Substance Abuse
- Temporomandibular Joint Disorders
- Thalassemia
- Thromboembolism
- Thrombophlebitis
- Thymoma
- Thymus Neoplasms
- Thyroiditis
- Tobacco Use Disorder
- Translocation
- Tuberculosis
- Tumor Virus Infections
- Urinary Bladder Neoplasms
- Urticaria
- Uterine Cervical Neoplasms
- Uterine Cervical Neoplasms

- Uveitis
- Uveomeningoencephalitic Syndrome
- Venous Thrombosis
- Viremia
- Vitiligo