

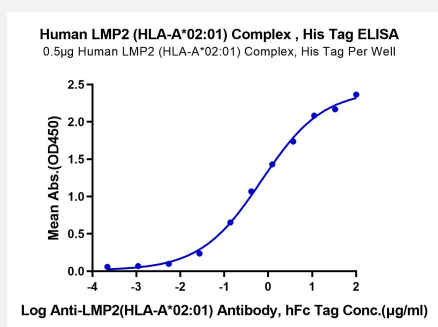
Bioactive

HuPro®

HLA-A/B2M/LMP2 (CLGGLTMOV) Monomer (Human) Recombinant Protein

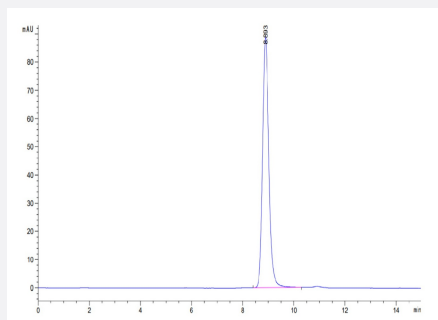
Catalog # P9828 Size 100 ug

Applications



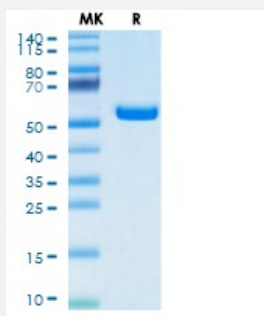
Enzyme-linked Immunoabsorbent Assay

Immobilized Human HLA-A*02:01&B2M&LMP2 (CLGGLTMOV) Monomer, His Tag at 5 ug/mL (100uL/Well) on the plate. Dose response curve for Anti-HLA-A*02:01&B2M&LMP2 (CLGGLTMOV) Antibody, hFc Tag with the EC50 of 0.7 ug/mL determined by ELISA.



SEC-HPLC

The purity of Human HLA-A*02:01&B2M&LMP2 (CLGGLTMOV) Monomer is greater than 95% as determined by SEC-HPLC.



Tris-Bis PAGE

Human HLA-A*02:01&B2M&LMP2 (CLGGLTMOV) Monomer on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

Specification

Product Description	Human HLA-A/B2M/LMP2 (CLGGLLTMV) Monomer (A0A140T913/P61769/P13473, Gly25-Thr305/Ile21-Met119/CLGGLLTMV) partial recombinant protein with His-Avi tag at C-Terminus expressed in HEK293 cells.
Sequence	Gly25-Thr305;Ile21-Met119;CLGGLLTMV peptide
Host	Human
Theoretical MW (kDa)	50.3
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system
Purity	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method)
Activity	The EC ₅₀ was 0.7 ug/mL, measured by ELISA at 5 ug/mL.
Quality Control Testing	SEC-HPLC and Tris-Bis PAGE SEC-HPLC The purity of Human HLA-A*02:01&B2M&LMP2 (CLGGLLTMV) Monomer is greater than 95% as determined by SEC-HPLC. Tris-Bis PAGE Human HLA-A*02:01&B2M&LMP2 (CLGGLLTMV) Monomer on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.
Recommend Usage	Biological Activity ELISA SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from sterile distilled Water is > 100 ug/mL
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of bioactivity analysis

Applications

- Enzyme-linked Immunoabsorbent Assay

Immobilized Human HLA-A*02:01&B2M&LMP2 (CLGGLLTMV) Monomer, His Tag at 5 ug/mL (100uL/Well) on the plate. Dose response curve for Anti-HLA-A*02:01&B2M&LMP2 (CLGGLLTMV) Antibody, hFc Tag with the EC50 of 0.7 ug/mL determined by ELISA.

- Functional Study

- SDS-PAGE

Gene Info — B2M

Entrez GeneID [567](#)

Protein Accession# [A0A140T913;P61769 ;P13473](#)

Gene Name B2M

Gene Alias -

Gene Description beta-2-microglobulin

Omim ID [109700 241600](#)

Gene Ontology [Hyperlink](#)

Gene Summary This gene encodes a serum protein found in association with the major histocompatibility complex (MHC) class I heavy chain on the surface of nearly all nucleated cells. The protein has a predominantly beta-pleated sheet structure that can form amyloid fibrils in some pathological conditions. A mutation in this gene has been shown to result in hypercatabolic hypoproteinemia

Other Designations beta chain of MHC class I molecules|beta-2-microglobin

Gene Info — HLA-A

Entrez GeneID [3105](#)

Protein Accession# [A0A140T913;P61769 ;P13473](#)

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 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, exons 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-A alleles have been described. [provided 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|leukocyte antigen class I|leukocyte antigen class I-A

Gene Info — LAMP2

Entrez GeneID

[3920](#)

Protein Accession#

[A0A140T913;P61769;P13473](#)

Gene Name

LAMP2

Gene Alias

CD107b, LAMPB, LGP110

Gene Description

lysosomal-associated membrane protein 2

Omim ID

[300257 309060](#)

Gene Ontology

[Hyperlink](#)

Gene Summary

The protein encoded by this gene is a member of a family of membrane glycoproteins. This glycoprotein provides selectins with carbohydrate ligands. It may play a role in tumor cell metastasis. It may also function in the protection, maintenance, and adhesion of the lysosome. Alternative splicing of this gene results in multiple transcript variants encoding distinct proteins. [provided by RefSeq]

Other Designations

OTTHUMP00000023943|OTTHUMP00000023944|lysosome-associated membrane protein 2

Pathway

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

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

Disease

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

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

- [Chagas Disease](#)
- [Chlamydophila 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](#)
- [Coronary Disease](#)
- [Crohn Disease](#)
- [Cytomegalovirus Infections](#)
- [Cytomegalovirus Retinitis](#)
- [Dengue](#)
- [Dermatitis](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetes Mellitus](#)
- [Diabetes Mellitus](#)
- [Disease](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)

- [Drug Eruptions](#)
- [Drug Hypersensitivity](#)
- [Drug Toxicity](#)
- [Drug-Induced Liver Injury](#)
- [Duchenne muscular dystrophy](#)
- [Duodenal Ulcer](#)
- [Dystonia](#)
- [Edema](#)
- [Edema](#)
- [Encephalitis](#)
- [Encephalomyelitis](#)
- [Endometriosis](#)
- [Enterovirus Infections](#)
- [Epidermal Necrolysis](#)
- [Epilepsy](#)
- [Epstein-Barr Virus Infections](#)
- [Esophageal Neoplasms](#)
- [Exanthema](#)
- [Eye Diseases](#)
- [Eye Infections](#)
- [Fibrosis](#)
- [Gastritis](#)
- [Gastritis](#)
- [Gastrointestinal Diseases](#)
- [Genetic Diseases](#)
- [Genetic Predisposition to Disease](#)

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- [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](#)
- [Hemosiderosis](#)
- [Hepatitis](#)
- [Hepatitis A](#)
- [Hepatitis B](#)
- [Hepatitis C](#)
- [Hepatitis D](#)
- [Hereditary hemochromatosis](#)
- [Herpes Zoster](#)

- [Herpesviridae Infections](#)
- [Histoplasmosis](#)
- [HIV Infections](#)
- [HIV Seropositivity](#)
- [Hodgkin Disease](#)
- [HTLV-I Infections](#)
- [Hyperplasia](#)
- [Hypersensitivity](#)
- [Hypertension](#)
- [IgA Deficiency](#)
- [IgG Deficiency](#)
- [Infection](#)
- [Infectious Mononucleosis](#)
- [Inflammation](#)
- [Iron Overload](#)
- [Joint Diseases](#)
- [Keloid](#)
- [Kidney Diseases](#)
- [Kidney Failure](#)
- [Kidney Failure](#)
- [Knee Injuries](#)
- [Leprosy](#)
- [Leptospirosis](#)
- [Leukemia](#)
- [Leukemia-Lymphoma](#)
- [Lipodystrophy](#)

- [Liver Cirrhosis](#)
- [Lung carcinoma](#)
- [Lung Neoplasms](#)
- [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](#)
- [Multiple Sclerosis](#)
- [Muscular Dystrophy](#)
- [Myasthenia Gravis](#)
- [Mycobacterium avium-intracellulare Infection](#)
- [Myelodysplastic Syndromes](#)
- [Myositis](#)
- [Nasal Polyps](#)
- [Nasopharyngeal Neoplasms](#)
- [Neoplasm Invasiveness](#)

- [Neoplasms](#)
- [Neovascularization](#)
- [Nephrosis](#)
- [Nephrotic Syndrome](#)
- [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](#)
- [Parkinson disease](#)
- [Paroxysmal nocturnal hemoglobinuria](#)
- [Pars Planitis](#)

- [Pemphigus](#)
- [Penile Induration](#)
- [Periodontal Attachment Loss](#)
- [Periodontitis](#)
- [Photosensitivity Disorders](#)
- [Pityriasis Rosea](#)
- [Polycystic Ovary Syndrome](#)
- [Porphyria](#)
- [Porphyria Cutanea Tarda](#)
- [Postoperative Complications](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Proteinuria](#)
- [Psoriasis](#)
- [Psychotic Disorders](#)
- [Pulmonary Disease](#)
- [Pulmonary Embolism](#)
- [Purpura](#)
- [Recurrence](#)
- [Respiratory Tract Infections](#)
- [Retroperitoneal Fibrosis](#)
- [Rheumatic Diseases](#)
- [Rheumatic Heart Disease](#)
- [Salivary Gland Diseases](#)

- [Sarcoidosis](#)
- [Sarcoma](#)
- [Schizophrenia](#)
- [Severe Acute Respiratory Syndrome](#)
- [Sexually Transmitted Diseases](#)
- [Skin Diseases](#)
- [Skin Neoplasms](#)
- [Small Cell Lung Carcinoma](#)
- [Spinal Cord Diseases](#)
- [Spondylarthritis](#)
- [Spondylarthropathies](#)
- [Spondylitis](#)
- [Stevens-Johnson Syndrome](#)
- [Stomach Neoplasms](#)
- [Stomach Neoplasms](#)
- [Stomatitis](#)
- [Substance Abuse](#)
- [Temporomandibular Joint Disorders](#)
- [Thromboembolism](#)
- [Thrombophlebitis](#)
- [Thymoma](#)
- [Thymus Neoplasms](#)
- [Thyroiditis](#)
- [Translocation](#)
- [Tuberculosis](#)
- [Tumor Virus Infections](#)

- [Urticaria](#)
- [Uterine Cervical Neoplasms](#)
- [Uveitis](#)
- [Uveomeningoencephalitic Syndrome](#)
- [Venous Thrombosis](#)
- [Viremia](#)
- [Vitiligo](#)