

Product datasheet for **AR51046PU-S**

HLA class I Cw7 alpha / HLA-C (25-308, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	HLA class I Cw7 alpha / HLA-C (25-308, His-tag) human protein, 0.1 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MGSSHHHHHH SSGLVPRGSH MGSCSHSMRY FDTAVSRPGR GEPRFISVGY VDDTQFVRFD SDAASPRGEP RAPWVEQEGP EYWDRETQKY KRQAQADRVS LRNLRGYYNQ SEDGSHTLQR MSGCDLGPDG RLLRGYDQSA YDGKDYIALN EDLRSWTAAD TAAQITQRKL EAARAAEQLR AYLEGTCVEW LRRYLENGKE TLQRAEPPKT HVTHHPLSDH EATLRCWALG FYPAEITLTW QRDGEDQTQD TELVETRPAG DGTFFQKWA AV WPSGQEQRY TCHMQHEGLQ EPLTLSWEPS SQPTIPI
Tag:	His-tag
Predicted MW:	34.9 kDa
Concentration:	lot specific
Purity:	>90% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 20% glycerol, 1 mM DTT
Preparation:	Liquid purified protein
Storage:	Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_001229971
Locus ID:	3107
UniProt ID:	O19617
Cytogenetics:	6p21.33
Synonyms:	HLAC, MHC class I antigen Cw7



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Summary:

HLA-C 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 endoplasmic reticulum lumen. They are expressed in nearly all cells. 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 domain, 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. About 6000 HLA-C alleles have been described. The HLA system plays an important role in the occurrence and outcome of infectious diseases, including those caused by the malaria parasite, the human immunodeficiency virus (HIV), and the severe acute respiratory syndrome coronavirus (SARS-CoV). The structural spike and the nucleocapsid proteins of the novel coronavirus SARS-CoV-2, which causes coronavirus disease 2019 (COVID-19), are reported to contain multiple Class I epitopes with predicted HLA restrictions. Individual HLA genetic variation may help explain different immune responses to a virus across a population.[provided by RefSeq, Aug 2020]

Protein Families:

Secreted Protein, Transmembrane

Protein Pathways:

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, Viral myocarditis

Product images: