

Recombinant Human HLA-C protein, His-tagged

Cat. No. HLA-C-269H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HLA-C protein(NP_001229971.1), fused to His-tag, was expressed in HEK293.
Species	Human
Source	HEK293
Description	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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

epitopes with predicted HLA restrictions. Individual HLA genetic variation may help explain different immune responses to a virus across a population.

Form	Supplied as a 0.2 µm filtered solution in PBS (pH 7.4)
Endotoxin	<1EU per ug (determined by the LAL method)
Storage	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Concentration	0.6 mg/ml

GENE INFORMATION

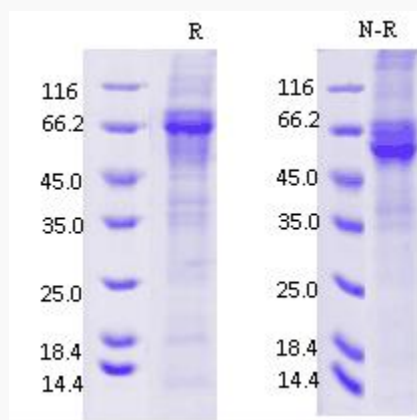
Gene Name	HLA-C major histocompatibility complex, class I, C [Homo sapiens (human)]
Official Symbol	HLA-C
Synonyms	MHC; HLAC; HLC-C; D6S204; PSORS1; HLA-JY3
Gene ID	3107
mRNA Refseq	NM_001243042.1
Protein Refseq	NP_001229971.1
MIM	142840
UniProt ID	P10321

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**SDS-PAGE of HLA-C-
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