

Recombinant Human HLA-B Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. HLA-B-1894H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

HLA MS Standard C13 and N15-labeled recombinant protein (NP_005505) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

Species

Human

Source

HEK293

Description

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.

Molecular Mass

40.3 kDa

AA Sequence

MLVMAPRTVLLLLSAALALTETWAGSHSMRYFDTAMSRPGRGEPFISVGYVDDTQ

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FVRFSDAASPREEPRAPWIEQEGPEYWRNTQIFKTNTQTDRESLRNLRGYYNQS
 EAGSHTLQSMYGCDVGPDRLLRGHNQYAYDGKDYIALNEDLRSWTAADTAAQIT
 QRKWEAARVAEQDRAYLEGTCVEWLRRYLENGKDTLERADPPKTHVTHHPISDHE
 ATLCRCWALGFYPAEITLTWQRDGEDQTQDTELVETRPAGDRTFQKWAAVVPSGE
 EQRYTCHVQHEGLPKPLTLRWEPSSQSTVPIVGIVAGLAVLAVVVIGAVVAVMCRR
 KSSGGKGGSYSQAACSDSAQGSVDVSLTATRTRPLEQKLISEEDLAANDILDYKDDD
 DKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name HLA-B major histocompatibility complex, class I, B [Homo sapiens (human)]

Official Symbol HLA-B

Synonyms

HLA-B; major histocompatibility complex, class I, B; ankylosing spondylitis, AS; lymphocyte antigen; MHC class I antigen SHCHA; MHC Class I HLA heavy chain; MHC class I antigen GN00104; leukocyte antigen class I-B; MHC HLA-B cell surface glycoprotein; MHC HLA-B transmembrane glycoprotein; MHC class I antigen HLA-B heavy chain; HLA class I histocompatibility antigen, B alpha chain; AS; HLAB; SPDA1; MGC111087;

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Gene ID 3106

mRNA Refseq NM_005514

Protein Refseq NP_005505

MIM 142830

UniProt ID P01889

SDS-PAGE



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