Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Tetramer Protein

Catalog # HLD-H52H7

Synonym

HLA-A*1101 & B2M & KRASG12D (VVVGADGVGK)

Source

Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Tetramer Protein(HLD-H52H7) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Thr 305 (HLA-A*11:01) & Ile 21 - Met 119 (B2M) & VVVGADGVGK peptide (Accession # Q5S3G3-1 (HLA-A*11:01) & P61769 (B2M) & VVVGADGVGK).
Predicted N-terminus: Gly 25 & Ile 21

Molecular Characterization

Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Tetramer Protein is assembled by biotinylated monomer (HLD-H82E9) and streptavidin.

Biotinylated Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Complex Protein is produced by co-expression of HLA and B2M loaded with KRASG12D peptide. Biotinylated Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Complex Protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 36.0 kDa and 11.7 kDa. The protein migrates as 38-41 kDa, 15 kDa and 11 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

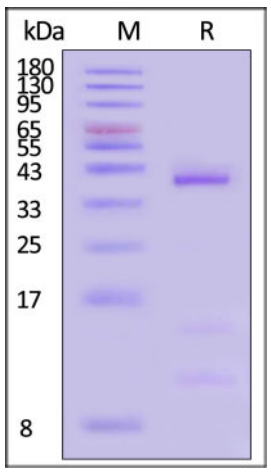
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

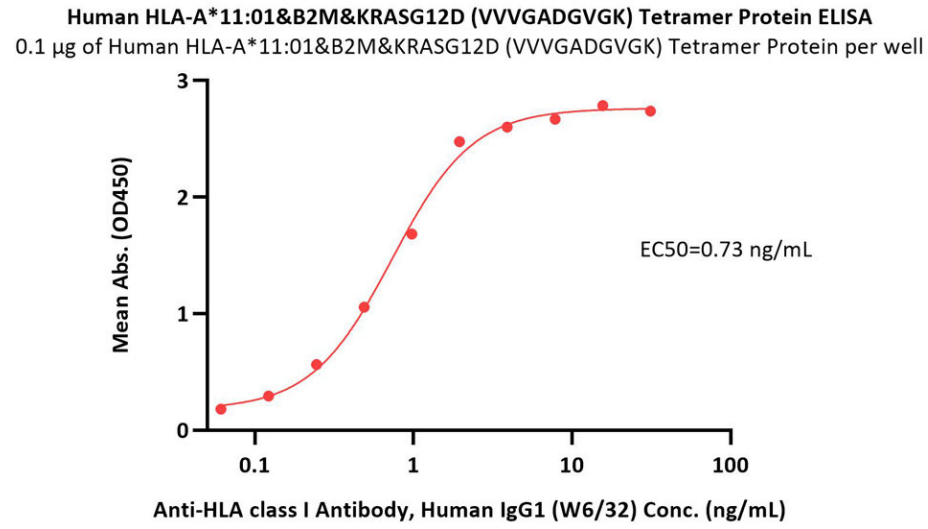
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

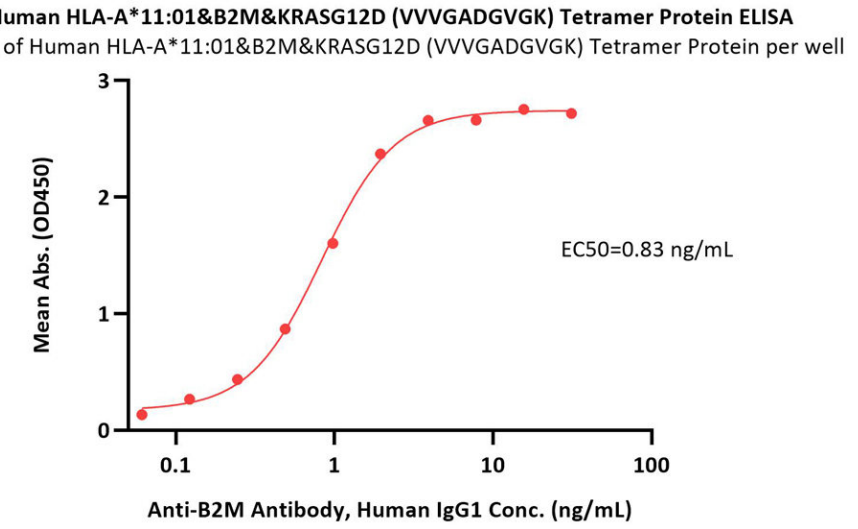


Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Tetramer Protein on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity-ELISA



Immobilized Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Tetramer Protein (Cat. No. HLD-H52H7) at 1 μg/mL (100 μL/well) can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with a linear range of 0.1-2 ng/mL (QC tested).



Immobilized Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Tetramer Protein (Cat. No. HLD-H52H7) at 1 μg/mL (100 μL/well) can bind Anti-B2M Antibody, Human IgG1 with a linear range of 0.1-2 ng/mL (Routinely tested).

Background

The Kirsten rat sarcoma 2 viral oncogene homolog (KRAS) oncogene plays a critical role in the initiation and maintenance of pancreatic tumors and its signaling network represents a major target for therapeutic intervention. The Alex Fluor labeled Human HLA-A*1101 KRASG12D (VVVGADGVGK) complex protein is a complex of HLA-A*1101 of the MHC Class I, B2M, and VVVGADGVGK peptide of the KRASG12D.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.