

Alexa Fluor™ 488-Labeled Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Complex Protein (Monomer)

Catalog # HLD-HA2H4



Synonym

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

Source

Alexa Fluor 488-Labeled Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Complex Protein(HLD-HA2H4) 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

Alexa Fluor 488-Labeled Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Complex Protein is produced by co-expression of HLA and B2M loaded with KRASG12D peptide.

This protein carries a polyhistidine tag at the C-terminus.
The protein has a calculated MW of 49.4 kDa and 11.7 kDa. The protein migrates as 57-70 kDa and 13 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Conjugate

AF488
Excitation Wavelength: 488 nm
Emission Wavelength: 517 nm

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with AF488 using standard chemical labeling method. The residual AF488 is removed by molecular sieve treatment during purification process.

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.

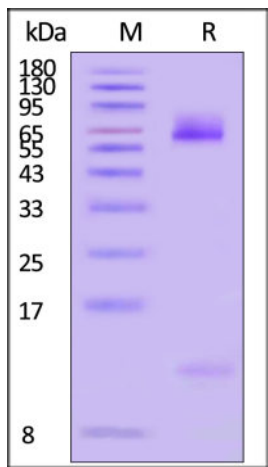
Storage

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



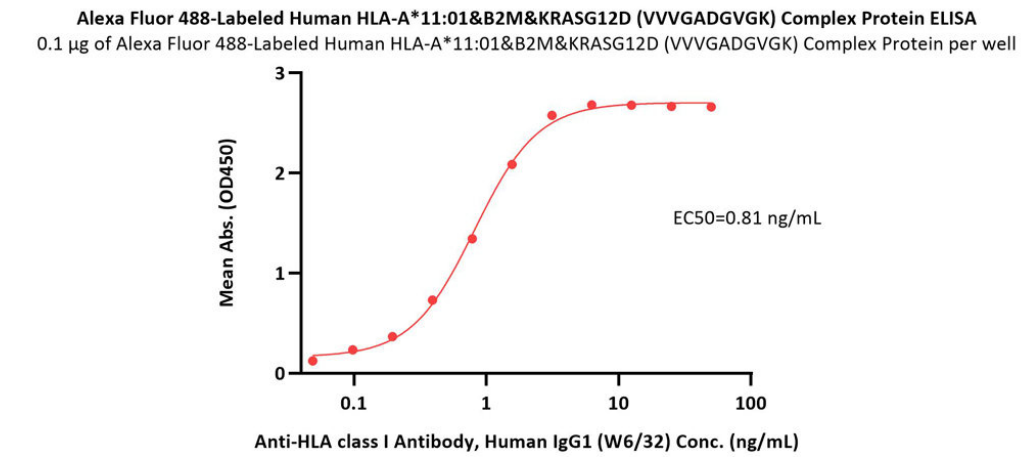
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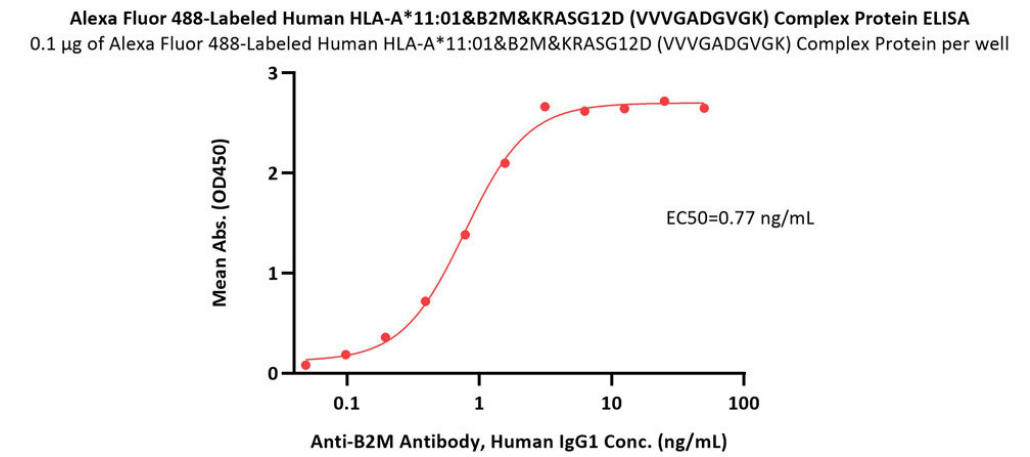


Alexa Fluor 488-Labeled Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Complex Protein on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

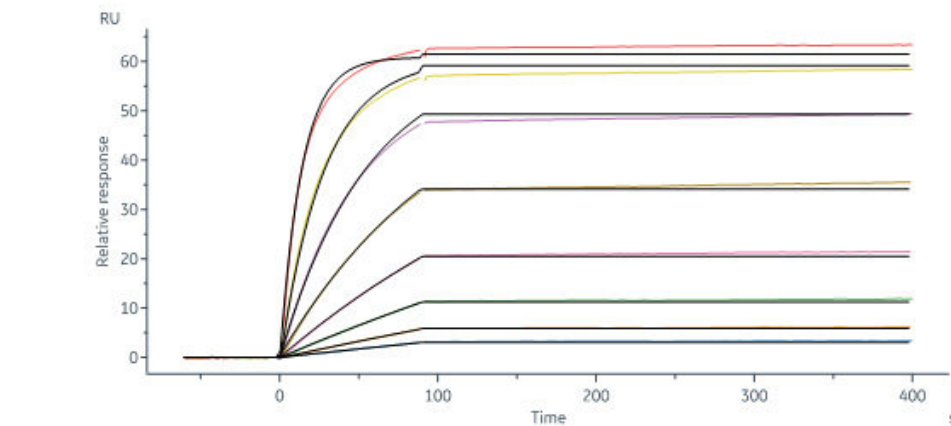


Immobilized Alexa Fluor 488-Labeled Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Complex Protein (Cat. No. HLD-HA2H4) at 1 µg/mL (100 µL/well) can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with a linear range of 0.1-2 ng/mL (QC tested).



Immobilized Alexa Fluor 488-Labeled Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Complex Protein (Cat. No. HLD-HA2H4) 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).

Bioactivity-SPR



Alexa Fluor 488-Labeled Human HLA-A*11:01&B2M&KRASG12D (VVVGADGVGK) Complex Protein (Cat. No. HLD-HA2H4) captured on CM5 Chip via Anti-B2M antibody can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with an affinity constant of 0.0913 pM as determined in a SPR assay (Biacore 8K) (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 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.

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