

# Alexa Fluor™ 488-Labeled Human HLA-A\*02:01&B2M&WT-1 (RMFPNAPYL) Tetramer Protein (MALS verified)

Catalog # HLW-HA2H5



## Source

Alexa Fluor 488-Labeled Human HLA-A\*02:01&B2M&WT-1 (RMFPNAPYL) Tetramer Protein(HLW-HA2H5) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A\*02:01) & Ile 21 - Met 119 (B2M) & RMFPNAPYL peptide (Accession # AAA59606.1 (HLA-A\*02:01) & P61769 (B2M) & RMFPNAPYL).

Predicted N-terminus: Gly 25 & Ile 21

## Molecular Characterization

Alexa Fluor 488-Labeled Human HLA-A\*02:01&B2M&WT-1 (RMFPNAPYL) Tetramer Protein is assembled by biotinylated monomer (HLW-H82E5) and AF488-labeled streptavidin.

Biotinylated Human HLA-A\*02:01&B2M&WT-1 (RMFPNAPYL) Complex Protein is produced by co-expression of HLA and B2M loaded with WT-1 peptide. Biotinylated Human HLA-A\*02:01&B2M&WT-1 (RMFPNAPYL) Complex Protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 36.3 kDa and 11.7 kDa. The protein migrates as 40-43 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.*

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>95% 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.

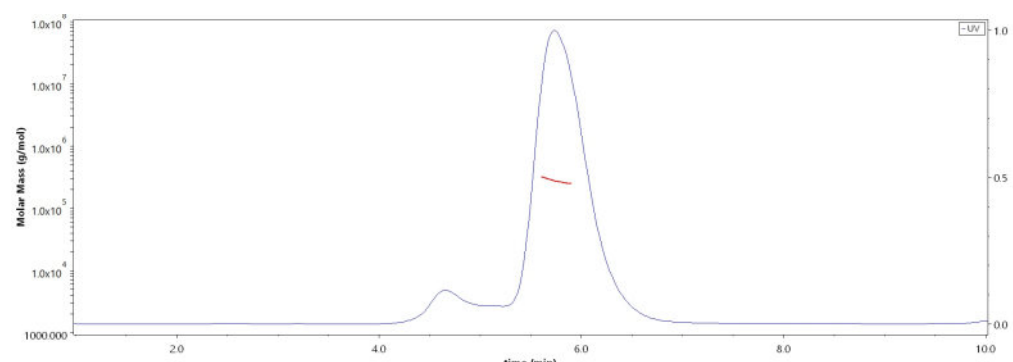
*Please protect from light and avoid repeated freeze-thaw cycles.*

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

## SEC-MALS



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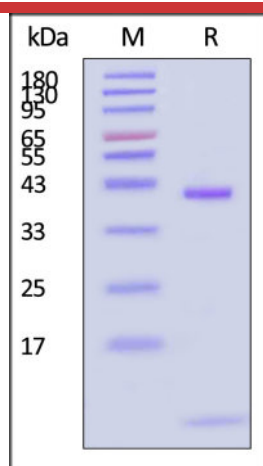


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The purity of Alexa Fluor 488-Labeled Human HLA-A\*02:01&B2M&WT-1 (RMFPNAPYL) Tetramer Protein (Cat. No. HLW-HA2H5) is more than 85% and the molecular weight of this protein is around 255-295 kDa verified by SEC-MALS.

[Report](#)

Alexa Fluor 488-Labeled Human HLA-A\*02:01&B2M&WT-1 (RMFPNAPYL) Tetramer Protein on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Background

Wilms tumor gene 1 (WT1), is an attractive target antigen for leukemia and solid cancer. WT1-specific adoptive immunotherapy has developed for tumor treatment in recent years. WT1 has been proved widely expressed in breast, colon and ovarian cancer. It participates in cell growth, differentiation and apoptosis regulation. The WT1127-134 (RMFPPYL) was shown to be recognized by HLA-A\*0201 tumor-infiltrating lymphocytes from melanoma patients, and therefore it is widely been studied in TCR-T studies. The Human HLA-A\*0201 WT-1 (RMFPPYL) complex Protein is a complex of HLA-A\*0201 of the MHC Class I, B2M and RMFPPYL peptide of the WT-1.

## Clinical and Translational Updates

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