

# Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer Protein

Cat. No. MHC-HM407T

## Description

<b>Source</b>	Recombinant Human HLA-A*02:01&B2M&AFP (FMNKFIYEI) Tetramer Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus, tetramer is assembled by biotinylated monomer and streptavidin. It contains Gly25-Thr305(HLA-A*02:01),Ile21-Met119(B2M) and FMNKFIYEI peptide.
<b>Accession</b>	A0A140T913(HLA-A*02:01)&P61769(B2M)&FMNKFIYEI
<b>Molecular Weight</b>	The protein has a predicted MW of 258 kDa. Due to glycosylation, the protein migrates to 260-265 kDa under Non reducing (N) condition based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per ug by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

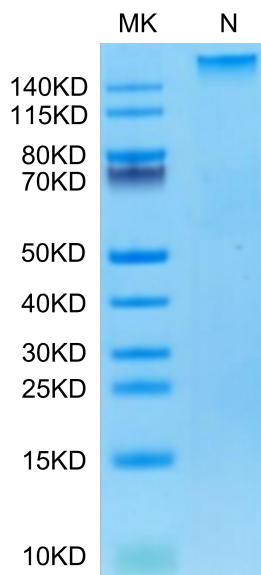
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Alpha-fetoprotein (AFP), a specific liver cancer marker, T cells expressing AFP-CAR selectively degranulated, released cytokines, and lysed liver cancer cells that were HLA-A\*02:01 /AFP while sparing cells from multiple tissue types that were negative for either expressed proteins. CAR T-cell immunotherapy targeting intracellular/secreted solid tumor antigens can elicit a potent antitumor response.

## Assay Data

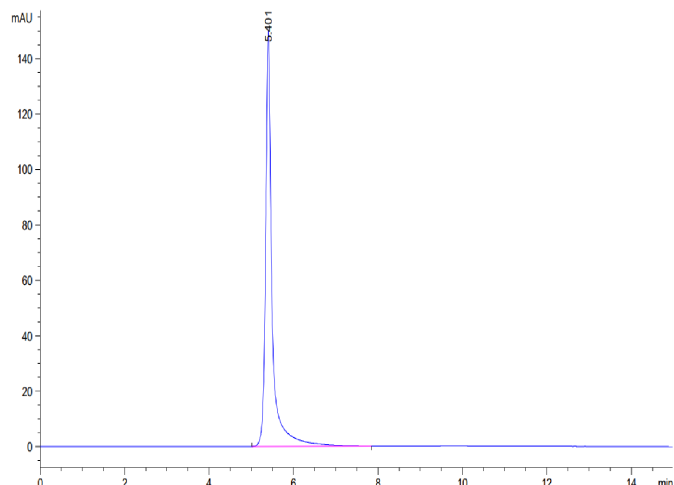
### Bis-Tris PAGE



Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer on Bis-Tris PAGE under Non reducing (N) condition. The purity is greater than 95%.

### SEC-HPLC

Assay Data

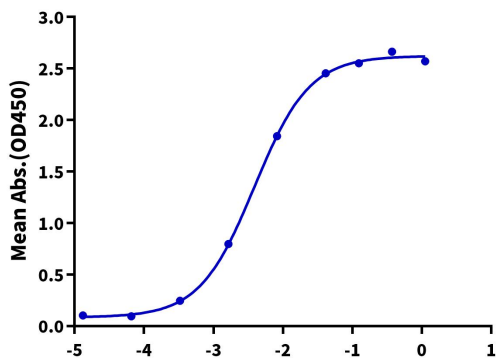


The purity of Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer is greater than 95% as determined by SEC-HPLC.

ELISA Data

Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer, His Tag ELISA

0.1µg Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer, His Tag Per Well



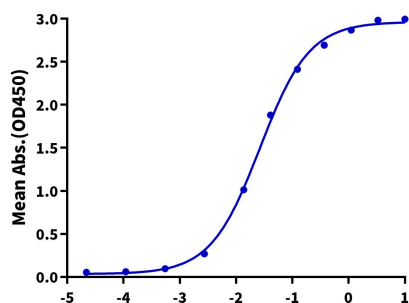
Log Anti-HLA-A\*02:01&B2M&AFP Antibody, hFc Tag Conc.(µg/ml)

Immobilized Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer, His Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Anti-HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Antibody, hFc Tag with the EC50 of 3.9ng/ml determined by ELISA (QC Test).

ELISA Data

Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer, His Tag ELISA

0.2µg HLA-A\*02:01&B2M&AFP TCR Per Well

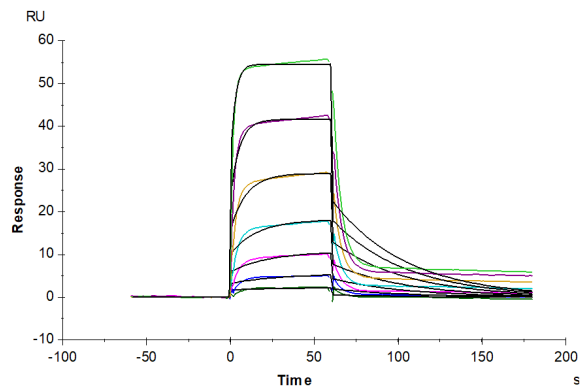


Log Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer, His Tag Conc.(µg/ml)

Immobilized HLA-A\*02:01&B2M&AFP (FMNKFIYEI) TCR at 2µg/ml (100µl/well) on the plate. Dose response curve for Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer, His Tag with the EC50 of 26.6ng/ml determined by ELISA.

SPR Data

Assay Data



Human HLA-A\*02:01&B2M&AFP (FMNKFIYEI) Tetramer, His Tag captured on CM5 Chip via Anti-His Antibody can bind HLA-A\*02:01&B2M&AFP (FMNKFIYEI) TCR with an affinity constant of 0.111  $\mu$ M as determined in SPR assay (Biacore T200).