

# Chimeric HLA-A\*02:01 ( $\alpha 3$ ) & B2M&LMP2 (CLGGLTMV) Monomer Protein



Cat. No. MHC-HM413

## Description

<b>Source</b>	Recombinant Chimeric HLA-A*02:01( $\alpha 3$ )&B2M&LMP2 (CLGGLTMV) Monomer Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains Gly25-Thr206(Human HLA-A*02:01 $\alpha 1$ & $\alpha 2$ )&Asp207-Glu299(Mouse H-2Ld $\alpha 3$ ), Ile21-Met119(B2M) and CLGGLTMV peptide.
<b>Accession</b>	A0A140T913(Human HLA-A*02:01 $\alpha 1$ & $\alpha 2$ )&P01897(Mouse H-2Ld $\alpha 3$ )&P61769(B2M)&CLGGLTMV
<b>Molecular Weight</b>	The protein has a predicted MW of 50.3 kDa. Due to glycosylation, the protein migrates to 52-65 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu$ g by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

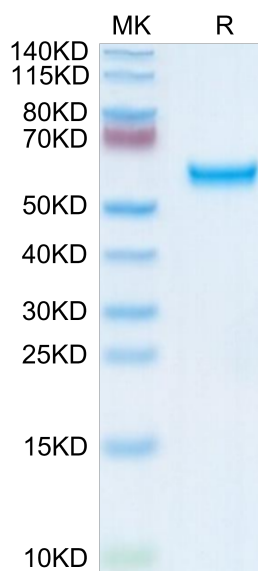
<b>Formulation</b>	Lyophilized from 0.22 $\mu$ m filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu$ g/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

The immunoproteasome, having been linked to neurodegenerative diseases and hematological cancers, has been shown to play an important role in MHC class I antigen presentation. The development of molecular probes that selectively inhibit the major catalytic subunit, LMP2, of the immunoproteasome, LMP2-rich cancer cells compared to LMP2-deficient cancer cells are more sensitive to growth inhibition by the LMP2-specific inhibitor, implicating an important role of LMP2 in regulating cell growth of malignant tumors that highly express LMP2.

## Assay Data

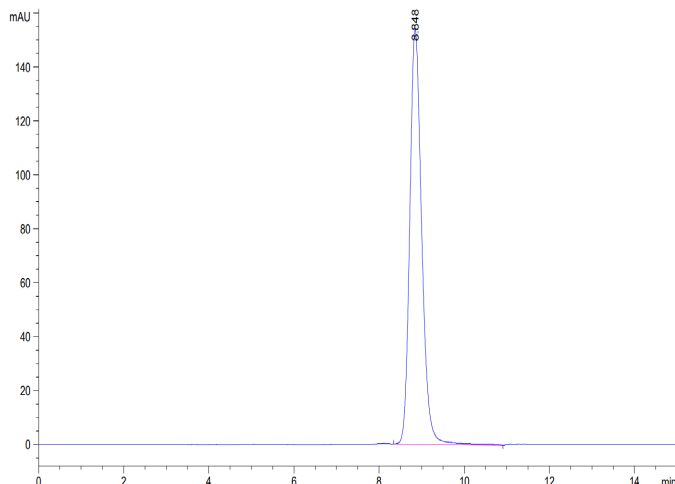
### Bis-Tris PAGE



Chimeric HLA-A\*02:01 ( $\alpha 3$ ) & B2M&LMP2 (CLGGLTMV) Monomer on Bis-Tris PAGE under reduced and non-reduced condition. The purity is greater than 95%.

### SEC-HPLC

Assay Data

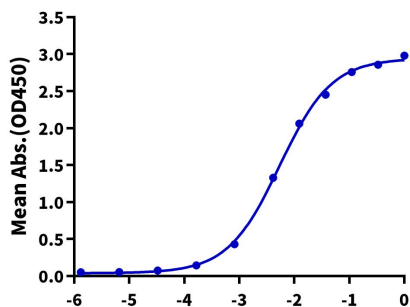


The purity of Chimeric HLA-A\*02:01 ( $\alpha 3$ ) & B2M&LMP2 (CLGGLTMV) Monomer was greater than 95% as determined by SEC-HPLC.

ELISA Data

Chimeric HLA-A\*02:01( $\alpha 3$ )&B2M&LMP2 (CLGGLTMV), His Tag ELISA

0.5 $\mu$ g Chimeric HLA-A\*02:01( $\alpha 3$ )&B2M&LMP2 (CLGGLTMV), His Tag Per Well



Log Anti-HLA-A\*02:01&B2M&LMP2 Antibody, hFc Tag Conc.( $\mu$ g/ml)

Immobilized Chimeric HLA-A\*02:01( $\alpha 3$ )&B2M&LMP2 (CLGGLTMV) Monomer, His Tag at 5 $\mu$ g/ml (100 $\mu$ l/well) on the plate. Dose response curve for Anti-HLA-A\*02:01&B2M&LMP2 (CLGGLTMV) Antibody, hFc Tag with the EC50 of 5.4ng/ml determined by ELISA.