

**Synonym**

HLA-A\*02:01 &amp; B2M &amp; NY-ESO-1 (SLLMWITQC)

**Source**

Human HLA-A\*02:01&B2M&NY-ESO-1 (SLLMWITQC) Tetramer Protein(HL1-H52E8) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A\*02:01) & Ile 21 - Met 119 (B2M) & SLLMWITQC peptide (Accession # [AAA59606.1](#) (HLA-A\*02:01) & [P61769](#) (B2M) & SLLMWITQC).

Predicted N-terminus: Gly 25 &amp; Ser

**Molecular Characterization**

Human HLA-A\*02:01&B2M&NY-ESO-1 (SLLMWITQC) Tetramer Protein is assembled by biotinylated monomer (HL1-H82E6) and streptavidin.

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

The protein has a calculated MW of 36.3 kDa, 13.8 kDa and 13.3 kDa. The protein migrates as 43-47 kDa, 15 kDa and 14 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  $\mu$ g by the LAL method / rFC method.**Purity**

&gt;90% as determined by SDS-PAGE.

&gt;90% as determined by SEC-MALS.

**Formulation**Lyophilized from 0.22  $\mu$ m 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.*

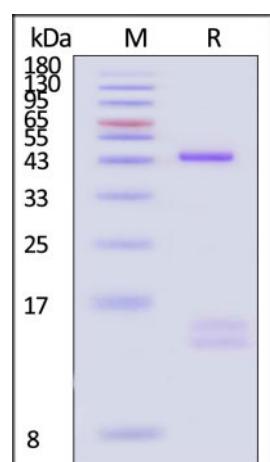
**Storage**

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

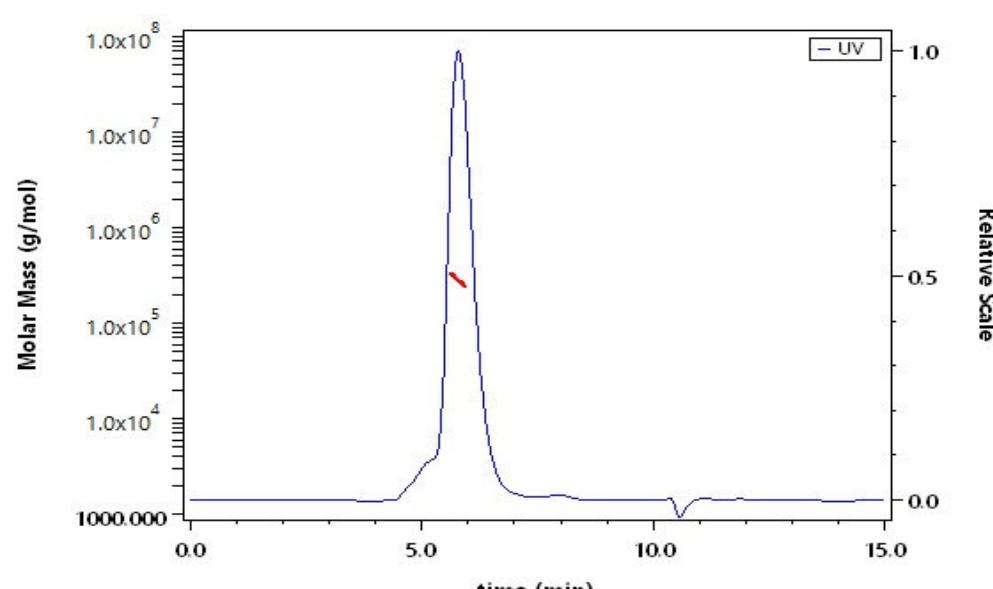
*Please avoid repeated freeze-thaw cycles.*

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\*02:01&B2M&NY-ESO-1 (SLLMWITQC) 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](#)).

**SEC-MALS**

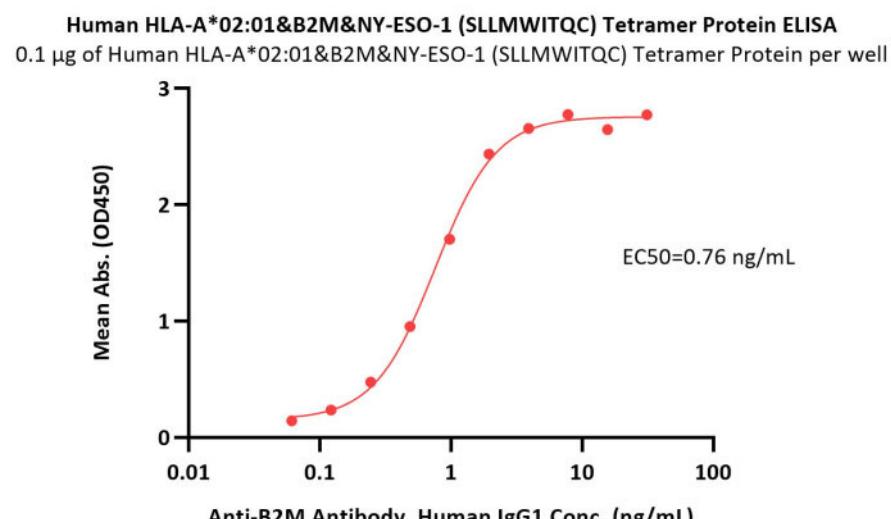
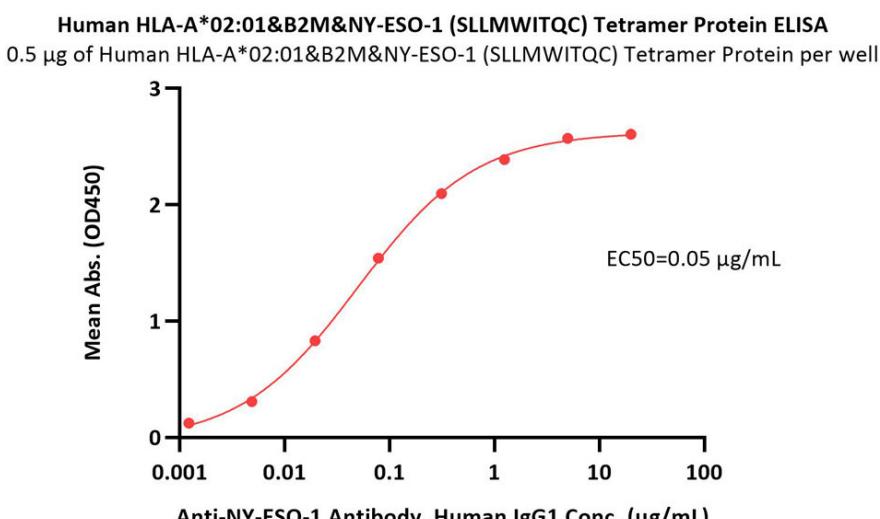
The purity of Human HLA-A\*02:01&B2M&NY-ESO-1 (SLLMWITQC) Tetramer Protein (Cat. No. HL1-H52E8) is more than 90% and the molecular weight of this protein is around 260-290 kDa verified by SEC-MALS. [Report](#)

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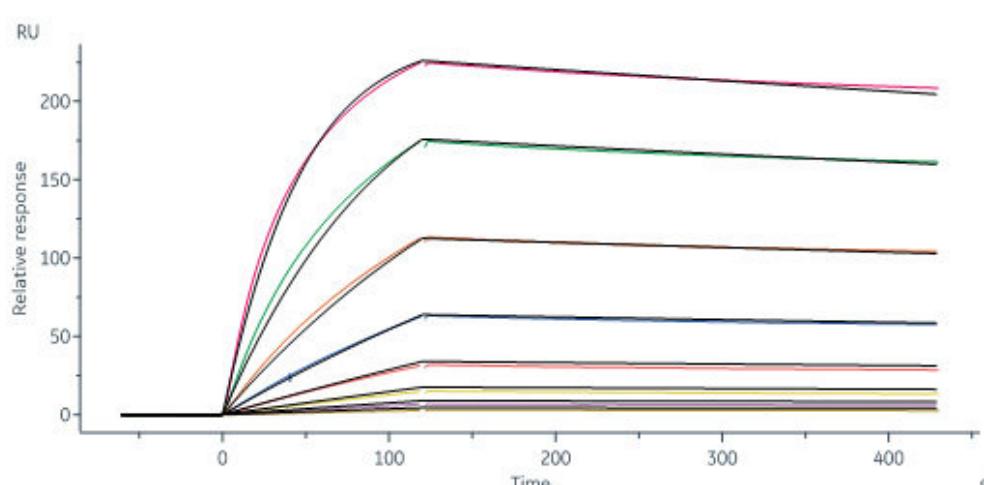
## Bioactivity-ELISA



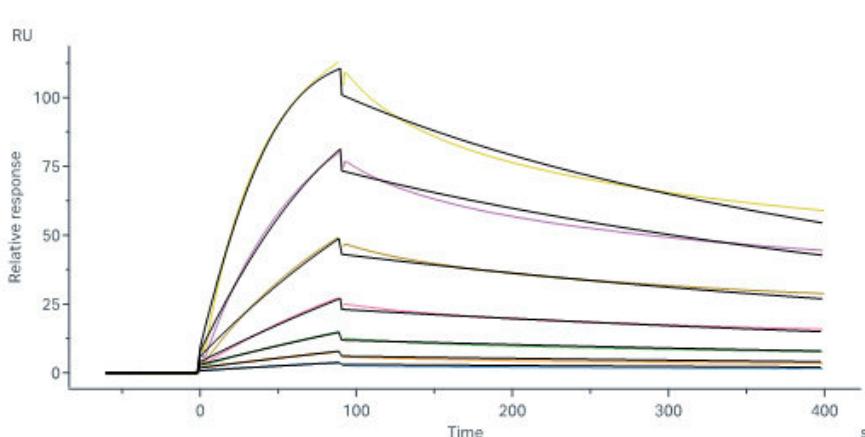
Immobilized Human HLA-A\*02:01&B2M&NY-ESO-1 (SLLMWITQC) Tetramer Protein (Cat. No. HL1-H52E8) at 5 µg/mL (100 µL/well) can bind Anti-NY-ESO-1 Antibody, Human IgG1 with a linear range of 0.001-0.313 µg/mL (QC tested).

Immobilized Human HLA-A\*02:01&B2M&NY-ESO-1 (SLLMWITQC) Tetramer Protein (Cat. No. HL1-H52E8) 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



Anti-NY-ESO-1 antibody captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human HLA-A\*02:01&B2M&NY-ESO-1 (SLLMWITQC) Tetramer Protein (Cat. No. HL1-H52E8) with an affinity constant of 1.35 nM as determined in a SPR assay (Biacore 8K) (QC tested).



NY-ESO-1 TCR captured on Protein A Chip can bind Human HLA-A\*02:01&B2M&NY-ESO-1 (SLLMWITQV) Tetramer Protein (Cat. No. HL1-H52E7) with an affinity constant of 15.7 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

## Background

NY-ESO-1, which is also well-known as New York esophageal squamous cell carcinoma 1, is an efficient target for cancer immunotherapy. This antigen is a member of cancer-testis antigens (CTAs) and is highly expressed in various cancers, including melanoma, ovarian, cervical cancer, etc. Adoptive T cell therapy with HLA-A2 restricted NY-ESO-1 transduced CD8+ T cells has improved the clinical response rates and overall survival of treatment-refractory melanoma patients. The Human HLA-A\*0201 NY-ESO-1 (SLLMWITQC) complex protein is a complex of HLA-A\*0201 of the MHC Class I, B2M and SLLMWITQC peptide of the NY-ESO-1.

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