

# Biotinylated Human HLA-A\*02:01&B2M& NY-ESO-1 (SLLMWITQC) Complex Protein (Monomer, MALS verified)

Catalog # HL1-H81E3



BIOSYSTEMS  
**Acro**

Surprise Inside!

## Synonym

HLA-A\*0201 & B2M & NY-ESO-1 (SLLMWITQC)

## Source

Biotinylated Human HLA-A\*02:01&B2M& NY-ESO-1 (SLLMWITQC) Complex Protein (HL1-H81E3) is expressed from *E. coli* cells. It contains AA Gly 25 - Trp 298 (HLA-A\*02:01) & Ile 21 - Met 119 (B2M) & SLLMWITQC (Accession # [AAA59606.1](#) (HLA-A\*02:01) & [P61769-1](#) (B2M) & SLLMWITQC).

Predicted N-terminus: Met & Met

## Molecular Characterization

Biotinylated Human HLA-A\*02:01&B2M& NY-ESO-1 (SLLMWITQC) Complex Protein is produced by co-expression of HLA-A\*02:01 and B2M loaded with NY-ESO-1 peptide.

This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 35.4 kDa and 11.9 kDa. The protein migrates as 38-40 kDa and 11 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Labeling

**Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.**

## Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

## 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 avoid repeated freeze-thaw cycles.**

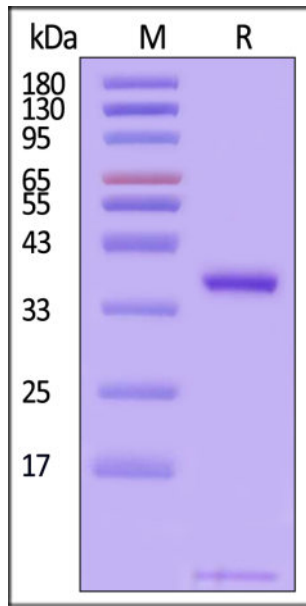
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## ACRO Quality Management System

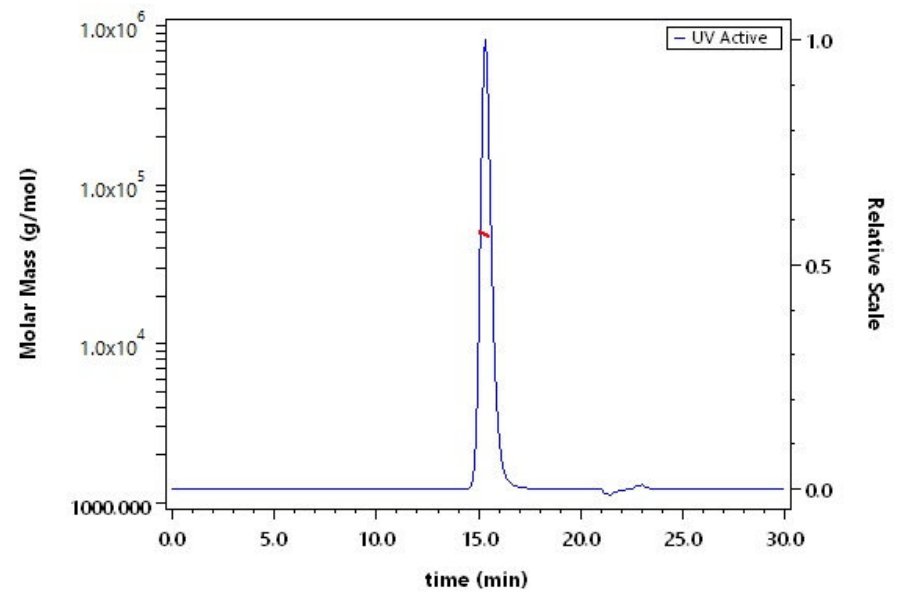
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

## SDS-PAGE



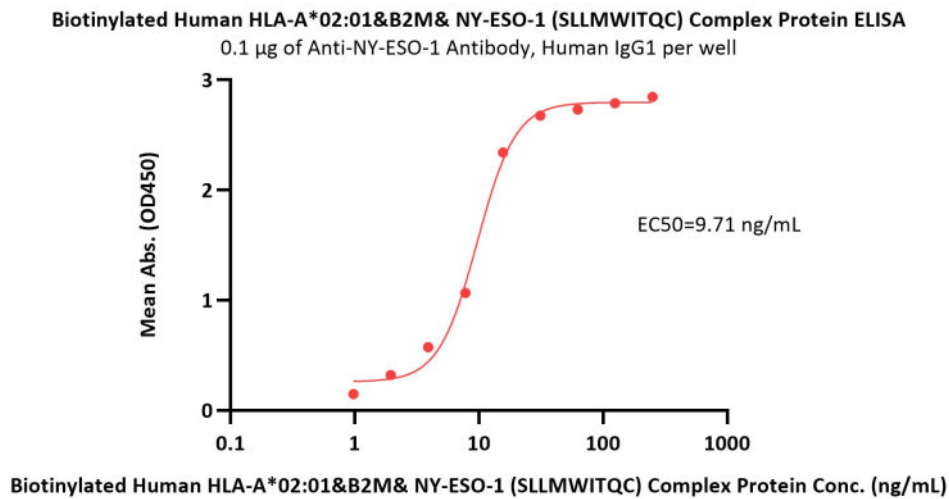
Biotinylated Human HLA-A\*02:01&B2M& NY-ESO-1 (SLLMWITQC) Complex Protein on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

## SEC-MALS



The purity of Biotinylated Human HLA-A\*02:01&B2M& NY-ESO-1 (SLLMWITQC) Complex Protein (Cat. No. HL1-H81E3) is more than 90% and the molecular weight of this protein is around 45-60 kDa verified by SEC-MALS.

## Bioactivity-ELISA



Immobilized Anti-NY-ESO-1 Antibody, Human IgG1 at 1 µg/mL (100 µL/well) can bind Biotinylated Human HLA-A\*02:01&B2M& NY-ESO-1 (SLLMWITQC) Complex Protein (Cat. No. HL1-H81E3) with a linear range of 1-31 ng/mL (QC 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<sup>+</sup> 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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