



## Source

Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein(H2A-M82E6) is expressed from human 293 cells (HEK293). It contains AA Gly 22 - Thr 305 (H-2Kb) & Ile 21 - Met 119 (B2M) & SIINFEKL peptide (Accession # [P01901](#) (H-2Kb) & [P01887](#) (B2M) & SIINFEKL).

Predicted N-terminus: Gly 22 & Ile 21

## Molecular Characterization

Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein is produced by co-expression of H-2Kb and B2M loaded with OVA peptide.

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

The protein has a calculated MW of 39.7 kDa and 15.7 kDa. The protein migrates as 48-53 kDa and 17 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.*

## Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>95% 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

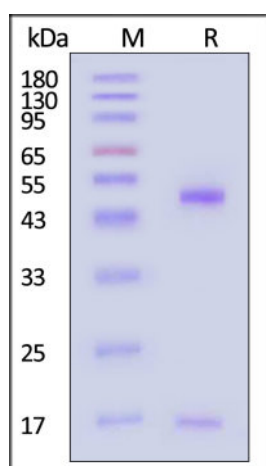
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

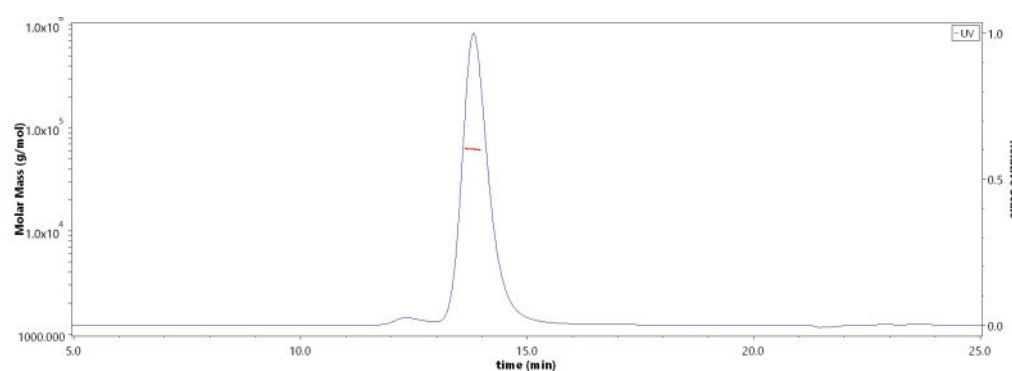
## SDS-PAGE



Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex 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](#)).

## Bioactivity-ELISA

## SEC-MALS



The purity of Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein (Cat. No. H2A-M82E6) is more than 90% and the molecular weight of this protein is around 55-70 kDa verified by SEC-MALS.

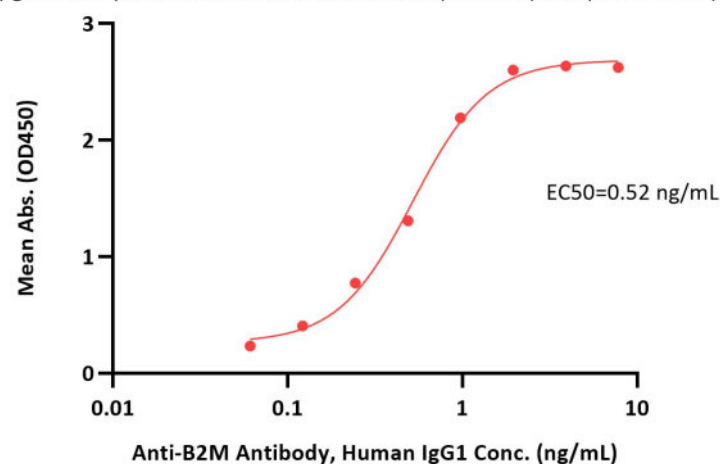
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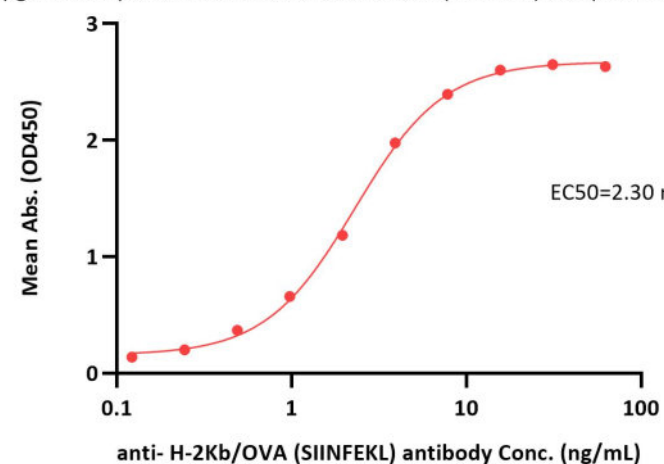


**Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein ELISA**  
0.1 µg of Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein per well



Immobilized Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein (Cat. No. H2A-M82E6) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Anti-B2M Antibody, Human IgG1 with a linear range of 0.1-1 ng/mL (QC tested).

**Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein ELISA**  
0.1 µg of Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein per well



Immobilized Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein (Cat. No. H2A-M82E6) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind anti-H-2Kb/OVA (SIINFEKL) antibody with a linear range of 0.1-4 ng/mL (Routinely tested).

### Background

Ovalbumin (OVA) can induce both humoral and cellular immune responses based on well-characterized peptide epitopes. The OVA257-264 octapeptide was one of the first OVA epitopes to be characterized, it has an amino acid sequence SIINFEKL, which is recognized by cytotoxic T lymphocytes. ovalbumin (Ova) was presented to T cells if it was released from pinosomes into the cytosol by osmotic lysis of pinosomes. Immunization with the adjuvanted SIINFEKL peptide induces long-lasting CD8+ T cell immunity in mice.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.

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