Catalog # H2A-M82E6



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 # <u>P01901</u> (H-2Kb) & <u>P01887</u> (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 (AvitagTM).

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 <u>Star Ribbon Pre-</u><u>stained Protein Marker</u> 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.

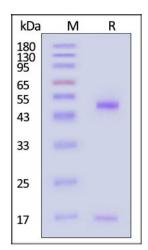
Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μ g by the LAL method.

SDS-PAGE



Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein on

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μ 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

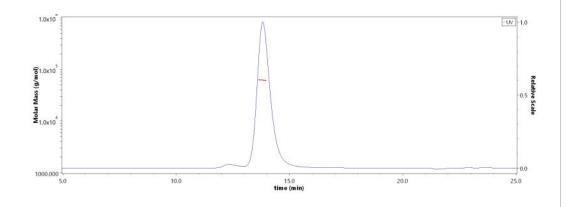
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

SEC-MALS



The purity of Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex

SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Prestained Protein Marker</u>).

Bioactivity-ELISA

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. Report

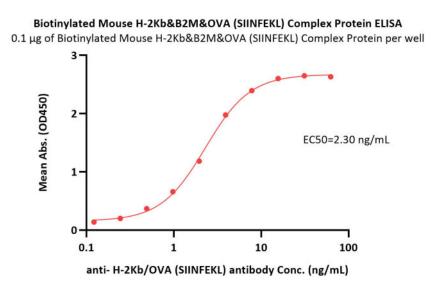


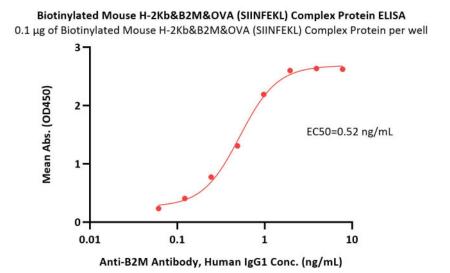
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Catalog # H2A-M82E6





Immobilized Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein (Cat. No. H2A-M82E6) at 1 μ g/mL (100 μ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μ g/well) plate can bind anti-H-2Kb/OVA (SIINFEKL) antibody with a linear range of 0.1-4 ng/mL (QC tested). Immobilized Biotinylated Mouse H-2Kb&B2M&OVA (SIINFEKL) Complex Protein (Cat. No. H2A-M82E6) at 1 μ g/mL (100 μ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μ g/well) plate can bind Anti-B2M Antibody, Human IgG1 with a linear range of 0.1-1 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



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