Synonym

HLA-A*0201 | B2M | NY-ESO-1

Source

PE-Labeled Human HLA-A*02:01&B2M&NY-ESO-1 (SLLMWITQV) Tetramer Protein(HL1-HP2E6) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A*02:01) & Ile 21 - Met 119 (B2M) & SLLMWITQV peptide (Accession # AAA59606.1 (HLA-A*02:01) & P61769-1 (B2M) & SLLMWITQV).
Predicted N-terminus: Gly 25 & Ser

Molecular Characterization

PE-Labeled Human HLA-A*02:01&B2M&NY-ESO-1 (SLLMWITQV) Tetramer Protein is assembled by biotinylated monomer (HL1-H82E4) and PE-labeled streptavidin.

Biotinylated Human HLA-A*02:01&B2M&NY-ESO-1 (SLLMWITQV) 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 (SLLMWITQV) Complex Protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

Formulation

Lyophilized from 0.22 μm filtered solution in 0.2% BSA 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

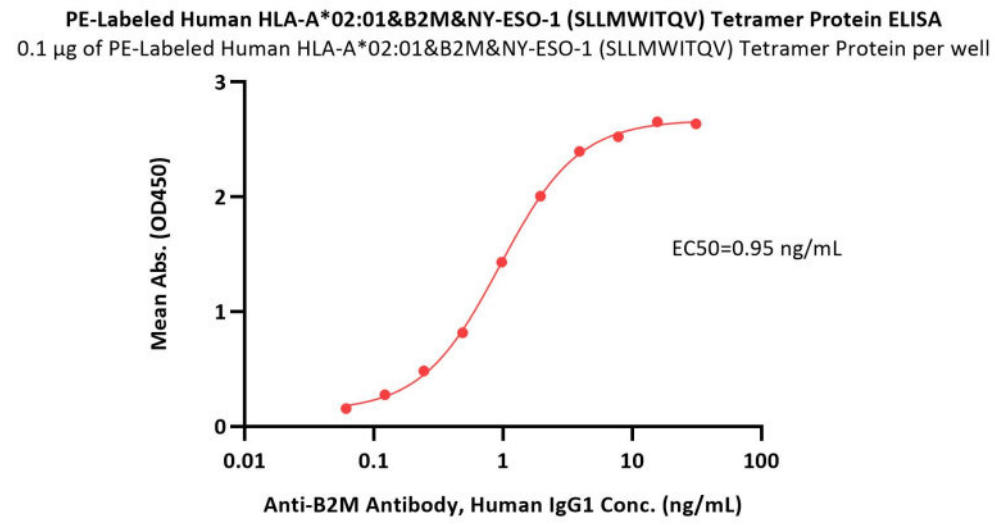
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

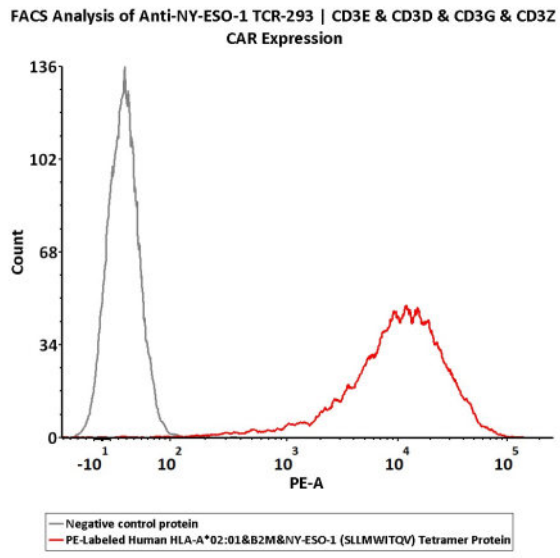
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

Bioactivity-ELISA



Immobilized PE-Labeled Human HLA-A*02:01&B2M&NY-ESO-1 (SLLMWITQV) Tetramer Protein (Cat. No. HL1-HP2E6) 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-FACS



5e5 of NY-ESO-1 specific TCR-HEK293 cell line were stained with 100 μL of 1:25 dilution (4 μL stock solution in 100 μL FACS buffer) of PE-Labeled Human HLA-A0201&B2M&NY-ESO-1 (SLLMWITQV) Tetramer Protein (Cat. No. HL1-HP2E6) and negative control protein respectively. PE signal was used to evaluate the binding activity (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+ T cells has improved the clinical response rates and overall survival of treatment-refractory melanoma patients. The Human HLA-A*0201 NY-ESO-1 (SLLMWITQV) complex protein is a complex of HLA-A*0201 of the MHC Class I, B2M and SLLMWITQV peptide of the NY-ESO-1.

Clinical and Translational Updates