



### Synonym

HLA-A\*0201 & B2M

### Source

PE-Labeled Human HLA-A\*02:01&B2M Tetramer Protein(HLM-HP2H3) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A\*02:01) & Ile 21 - Met 119 (B2M) (Accession # [AAA59606.1](#) (HLA-A\*02:01) & [P61769-1](#) (B2M)).

Predicted N-terminus: Gly 25 & Ile 21

### Molecular Characterization

PE-Labeled Human HLA-A\*02:01&B2M Tetramer Protein is assembled by biotinylated monomer (HLM-H82W3) and PE-labeled streptavidin.

Biotinylated Human HLA-A\*02:01&B2M Complex Protein is produced by co-expression of HLA and B2M. This 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

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>90% as determined by SDS-PAGE.

### Formulation

Lyophilized from 0.22 µm filtered solution in PBS, 1% BSA, 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

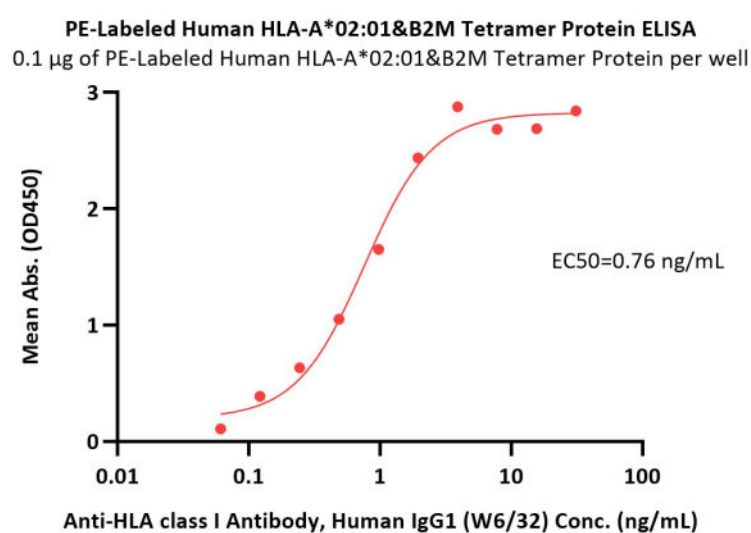
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

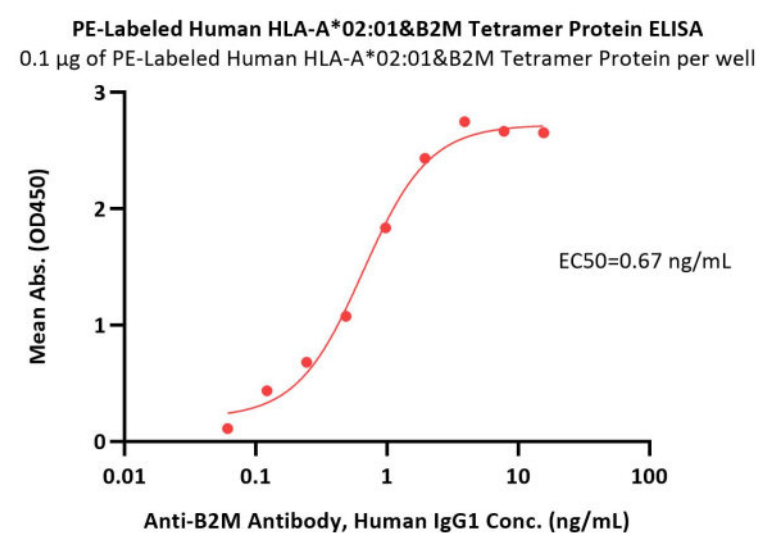
This product is stable after storage at:

- -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 Tetramer Protein (Cat. No. HLM-HP2H3) at 1 µg/mL (100 µL/well) can bind Anti-HLA class I Antibody, Human IgG1 (W6/32) with a linear range of 0.1-2 ng/mL (QC tested).



Immobilized PE-Labeled Human HLA-A\*02:01&B2M Tetramer Protein (Cat. No. HLM-HP2H3) at 1 µg/mL (100 µL/well) can bind Anti-B2M Antibody, Human IgG1 with a linear range of 0.1-1 ng/mL (Routinely tested).

### Evaluation of CAR expression

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and more!



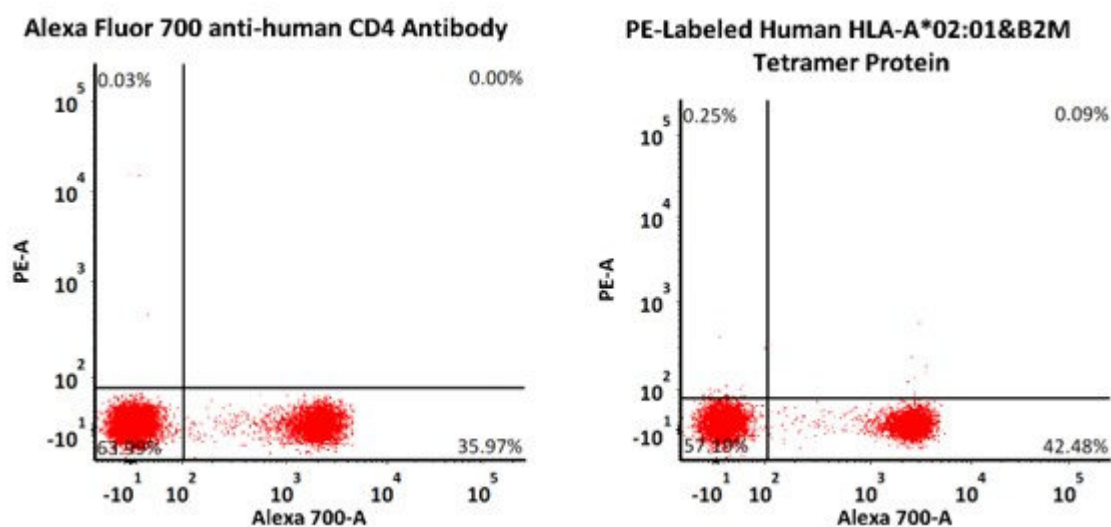
# PE-Labeled Human HLA-A\*02:01&B2M Tetramer Protein (Peptide free)

Catalog # HLM-HP2H3



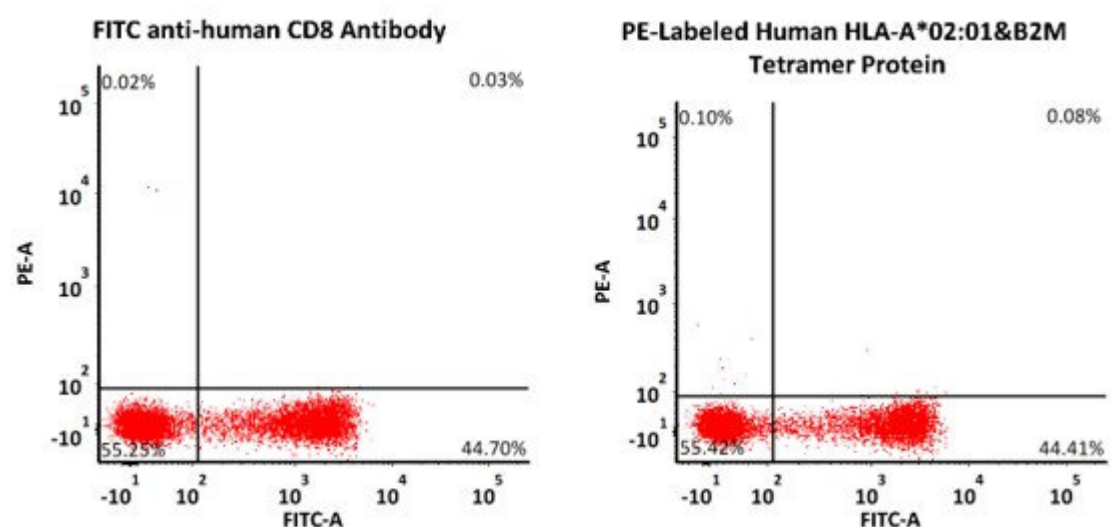
BIOSYSTEMS  
**Acro**

## FACS Analysis of Non-specific binding to PBMCs



Non-specificity of PE-Labeled Human HLA-A\*02:01&B2M Tetramer Protein (Cat. No. HLM-HP2H3) binding to CD4<sup>+</sup> cells present in human PBMC. 5e5 of human PBMCs were simultaneously stained with Alexa Fluor® 700 anti-human CD4 Antibody and PE-Labeled Human HLA-A\*02:01&B2M Tetramer Protein (1 µg corresponds to labeling of 5e5 cells in a final volume of 100 µL) and washed and then analyzed with FACS. Both Alexa 700 and PE positive signals was used to evaluate the non-specific binding activity to human CD4<sup>+</sup> cells (Routinely tested).

## FACS Analysis of Non-specific binding to PBMCs



Non-specificity of PE-Labeled Human HLA-A\*02:01&B2M Tetramer Protein (Cat. No. HLM-HP2H3) binding to CD8<sup>+</sup> cells present in human PBMC. 5e5 of human PBMCs were simultaneously stained with FITC anti-human CD8 Antibody and PE-Labeled Human HLA-A\*02:01&B2M Tetramer Protein (1 µg corresponds to labeling of 5e5 cells in a final volume of 100 µL) and washed and then analyzed with FACS. Both FITC and PE positive signals was used to evaluate the non-specific binding activity to human CD8<sup>+</sup> cells (Routinely tested).

## Clinical and Translational Updates

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