## Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Tetramer Protein (MALS verified)

Catalog # HLK-H52E5



### **Synonym**

HLA-A\*02:01 & B2M & MAGE-A4 (KVLEHVVRV)

#### Source

Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Tetramer Protein(HLK-H52E5) is expressed from human 293 cells (HEK293). It contains AA Gly 25 - Ile 308 (HLA-A\*02:01) & Ile 21 - Met 119 (B2M) & KVLEHVVRV peptide (Accession # <u>AAA59606.1</u> (HLA-A\*02:01) & <u>P61769-1</u> (B2M) & KVLEHVVRV).

Predicted N-terminus: Gly 25 & Ile 21

#### **Molecular Characterization**

Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Tetramer Protein is assembled by biotinylated monomer and streptavidin.

Biotinylated Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Complex Protein is produced by co-expression of HLA and B2M loaded with MAGE-A4 peptide. Biotinylated Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Complex Protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag<sup>TM</sup>).

The protein has a calculated MW of 36.3 kDa, 13.3 kDa and 11.7 kDa. The protein migrates as 40-45 kDa, 15 kDa and 13 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### **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  $0.22~\mu m$  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

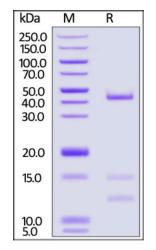
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

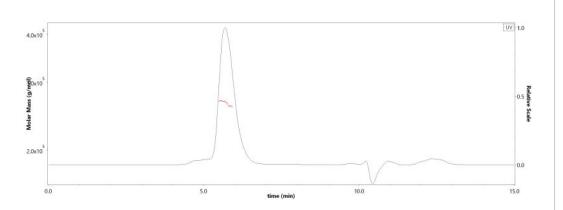
## **SDS-PAGE**



Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Tetramer Protein on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

## **Bioactivity-ELISA**

## **SEC-MALS**



The purity of Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Tetramer Protein (Cat. No. HLK-H52E5) is more than 90% and the molecular weight of this protein is around 230-270 kDa verified by SEC-MALS.

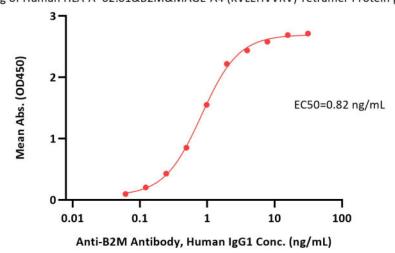
Report

## Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Tetramer Protein (MALS verified)





Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Tetramer Protein ELISA 0.1  $\mu$ g of Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Tetramer Protein per well



Immobilized Human HLA-A\*02:01&B2M&MAGE-A4 (KVLEHVVRV) Tetramer Protein (Cat. No. HLK-H52E5) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-B2M Antibody, Human IgG1 with a linear range of 0.06-2 ng/mL (Routinely tested).

### **Background**

The MAGE A4 antigen is a cancer-testis antigen and is expressed intracellularly in various solid tumor tissues, MAGE A4230-239 peptide (GVYDGREHTV) is a cytotoxic T lymphocyte (CTL) epitope presented by HLA-A2 The Human HLA-A\*0201 MAGE-A4 (GVYDGREHTV) complex protein is a complex of HLA-A\*0201 of the MHC Class I, B2M, and GVYDGREHTV peptide of the MAGE-A4.

# **Clinical and Translational Updates**

