Data Sheet (Cat.No.TMPK-01513)

TargetMol

HLA-A*02:01&B2M&NY-ESO-1 (SLLMWITQV) Monomer Protein, Human, MHC (His & Avi),

General Information

Synonyms:	CT6.1;LAGE2A;MHC;CTAG1B;CTAG1;ESO1CTAG;MY-ESO-1;LAGE-2;NY-ESO-1
Protein Construction:	Gly25-Thr305(HLA-A*02:01),Ile21-Met119(B2M) and SLLMWITQV peptide
Species:	Human
Expression Host:	HEK293 Cells
Accession:	A0A140T913(HLA-A*02:01)&P61769(B2M)&SLLMWITQV
Molecular Weight:	The protein has a predicted MW of 50.5 kDa. Due to glycosylation, the protein migrates to 51-56 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Anti-HLA-A*02:01&B2M&NY-ESO-1 (SLLMWITQV) Antibody, hFc Tag at 1μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Human HLA-A*02:01&B2M&NY-ESO-1 (SLLMWITQV) Monomer, His Tag with the EC50 of 31.3ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

NY-ESO-1 or New York esophageal squamous cell carcinoma 1 is a well-known cancer-testis antigen (CTAs) with re-expression in numerous cancer types. Its ability to elicit spontaneous humoral and cellular immune responses, together with its restricted expression pattern, have rendered it a good candidate target for cancer

immunotherapy.

Reference

Thomas R, et al. NY-ESO-1 Based Immunotherapy of Cancer: Current Perspectives. Front Immunol. 2018 May 1;9: 947. doi: 10.3389/fimmu.2018.00947. PMID: 29770138; PMCID: PMC5941317.