# Data Sheet (Cat.No.TMPK-01509)

TargetMol

## HLA-A*02:01&B2M&P53 WT (HMTEVVRRC) Monomer Protein, Human, MHC (His & Avi)

### General Information

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|---|---|
| Synonyms: | TRP53;HLA-A;TP53;LFS1;P53;MHC;FLJ92943;BCC7;Antigen NY-CO-13 |
| Protein Construction: | Gly25-Thr305(HLA-A*02:01),Ile21-Met119(B2M) and HMTEVVRRC peptide |
| Species: | Human |
| Expression Host: | HEK293 Cells |
| Accession: | A0A140T913(HLA-A*02:01)&P61769(B2M)&HMTEVVRRC |
| Molecular Weight: | The protein has a predicted MW of 50.5 kDa. Due to glycosylation, the protein migrates to 52-62 kDa based on Tris-Bis PAGE result. |

### QC Testing

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| Biological Activity: | Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first. |
| 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

p53 is a tumor suppressor protein. Under stressful conditions, p53 tightly regulates cell growth by promoting apoptosis and DNA repair. When p53 becomes mutated, it loses its function, resulting in abnormal cell proliferation and tumor progression. Depending on the p53 mutation, it has been shown to form aggregates leading to negative gain of function of the protein. p53 mutant associated aggregation has been observed in several cancer tissues and has been shown to promote tumor growth.

Reference

Donnellan Z, et al. ImmTACs: bi-specific TCR-anti-CD3 fusions for targeted tumour killing[J]. Journal for ImmunoTherapy of Cancer, 2015, 3(Suppl 2):P299.



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