

Rev03  
 Update: Aug,08,2025
**DATASHEET**

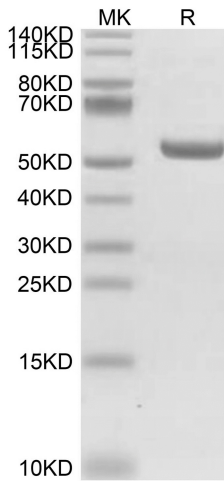
# HLA-A\*02:01&B2M&LMP2 (CLGGLTMV) Monomer[Biotin], His & Avi, Human

Cat. No.: Z06468

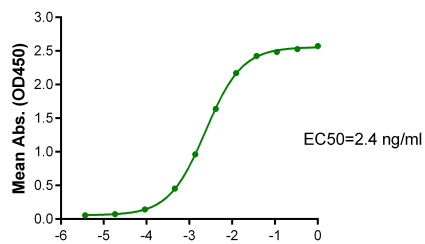
## Product Introduction

<b>Species</b>	Human
<b>Protein Construction</b>	<div style="display: flex; align-items: center;"> <div style="background-color: #0056b3; color: white; padding: 5px; margin-right: 10px;">           HLA-A*02:01&amp;B2M&amp;LMP2 (CLGGLTMV) Monomer [Gly25-Thr305(HLA-A*02:01, Ile21-Met119(B2M) and CLGGLTMV peptide)            Accession # A0A140T913(HLA-A*02:01)&amp;P61769(B2M)&amp;CLGGLTMV         </div> <div style="display: flex; gap: 5px;"> <div style="background-color: #90c090; padding: 5px;">His</div> <div style="background-color: #008000; color: white; padding: 5px;">Avi</div> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>N-term</span> <span>C-term</span> </div>
<b>Conjugate</b>	Biotin
<b>Purity</b>	> 95% as determined by BisTris PAGE > 95% as determined by HPLC
<b>Endotoxin Level</b>	Less than 1EU per µg by the LAL method.
<b>Biological Activity</b>	Measured by its binding ability in a functional ELISA. Immobilized HLA-A*02:01&B2M&LMP2 (CLGGLTMV) Monomer[Biotin], His & Avi, Human at 1µg/ml (100µl/Well) on streptavidin (5µg/ml) precoated plate can bind AntiHLA - A*02:01&B2M&LMP2 (CLGGLTMV) Antibody, hFc Tag. Test result was comparable to standard batch.
<b>Expression System</b>	HEK293
<b>Theoretical Molecular Weight</b>	50.3 kDa
<b>Apparent Molecular Weight</b>	Due to glycosylation, the protein migrates to 51-60 kDa based on Bis-Tris PAGE result.
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4).
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage &amp; Stability</b>	Upon receiving, the product remains stable up to 6 months at -20 °C or below. Upon reconstitution, the product should be stable for 3 months at -80 °C. Avoid repeated freeze-thaw cycles.

## Examples

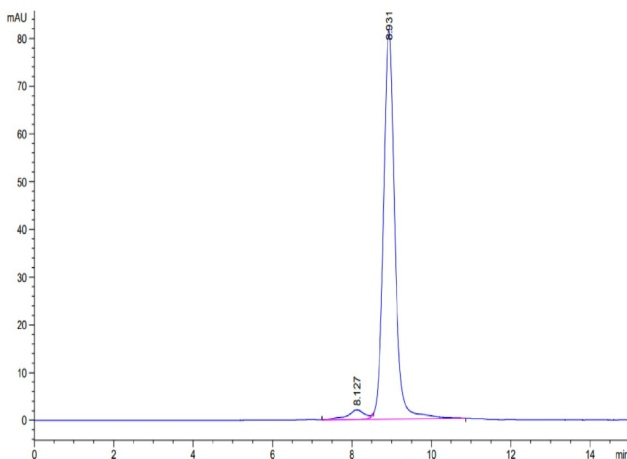


HLA-A\*02:01&B2M&LMP2 (CLGGLTMV) Monomer[Biotin], His & Avi, Human on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.



Log Anti-HLA-A\*02:01&B2M&LMP2 (CLGGLTMV) Antibody, hFc Tag Conc. ( $\mu\text{g/ml}$ )

Immobilized HLA-A\*02:01&B2M&LMP2 (CLGGLTMV) Monomer[Biotin], His & Avi, Human, His Tag at 1  $\mu\text{g/ml}$  (100  $\mu\text{l/Well}$ ) on streptavidin(5  $\mu\text{g/ml}$ ) precoated plate. Dose response curve for Anti-HLA-A\*02:01&B2M&LMP2 (CLGGLTMV) Antibody, hFc Tag with the EC50 of 2.4 ng/ml determined by ELISA.



The purity of HLA-A\*02:01&B2M&LMP2 (CLGGLTMV) Monomer[Biotin], His & Avi, Human is greater than 95% as determined by SEC-HPLC.

## Background

**Target Background :** The immunoproteasome, having been linked to neurodegenerative diseases and hematological cancers, has been shown to play an important role in MHC class I antigen presentation. The development of molecular probes that selectively inhibit the major catalytic subunit, LMP2, of the immunoproteasome, LMP2-rich cancer cells compared to LMP2-deficient cancer cells are more sensitive to growth inhibition by the LMP2-specific inhibitor, implicating an important role of LMP2 in regulating cell growth of malignant tumors that highly express LMP2.

**Synonyms :** MHC; RMF; LMP2; LMP-2; Macropain chain 7; Proteasome chain 7; PSMB9; RING12

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Manufacturer: Nanjing GenScript Biotech Co., Ltd. No. 28Yongxi Road, Jiangning District, Nanjing, Jiangsu, China

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**GenScript USA, Inc.**

860 Centennial Ave. Piscataway, NJ 08854

Tel: 1-732-885-9188