Data Sheet (Cat.No.TMPK-00219)

TargetMol

MICA Protein, Human, Recombinant (His & Avi), Biotinylated

General Information

Synonyms:	MICA;MGC21250;DAMA-345G11.2;MGC111087;FLJ60820;FLJ36918;PERB11.1
Protein Construction:	Glu24-Gln308
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96QC4
Molecular Weight:	35.8 kDa (predicted). Due to glycosylation, the protein migrates to 60-68 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Human NKG2D, hFc Tag at 2μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Human MICA, His Tag with the EC50 of 0.32μg/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:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. 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

TMICA (MHC class I chain-related gene A) is a transmembrane glycoprotein that functions as a ligand for human NKG2D. A closely related protein, MICB, shares 85% amino acid identity with MICA. These proteins are distantly related to the MHC class I proteins. They possess three extracellular Ig-like domains, but they have no capacity to bind peptide or interact with beta 2-microglobulin.

Reference

Friese M A, et al. MICA/NKG2D-mediated immunogene therapy of experimental gliomas.[J]. Cancer Research, 2003, 63(24):8996-9006.

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