

Human MICA*001 Protein, His Tag (Q29983-1)

Product Information

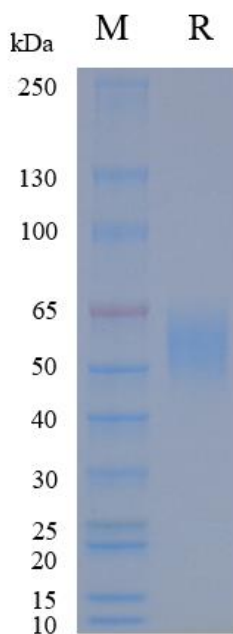
Product Name	Human MICA*001 Protein, His Tag (Q29983-1)
Storage temp	Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88550RP-100 / 100 μg GM-88550RP-1000 / 1 mg

Protein Information

Alternative Names	MIC-A, MHC class I polypeptide-related sequence A
Source	Human MICA*001 Protein, His Tag (Q29983-1) (GM-88550RP) is expressed from human 293 cells (HEK-293). It contains AA Glu 24 - Trp 307 (Accession # Q29983-1). This protein carries a His tag at the C-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	33.6 KDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Description	MICA (MHC class I polypeptide-related sequence A) is a stress-induced ligand of the activating receptor NKG2D, primarily expressed on epithelial and tumor cells under cellular stress such as infection or transformation. It is a non-classical MHC I-like molecule located in the human MHC region, with multiple alleles and isoforms. Unlike classical MHC molecules, MICA does not present peptides; instead, surface MICA engages NKG2D on NK cells and some T cells to trigger cytotoxic responses and cytokine production. MICA signals mainly through the activating receptor NKG2D, promoting NK cell cytotoxicity and co-stimulating certain T cell responses. NKG2D engagement activates downstream pathways via adaptors such as DAP10, recruiting PI3K and other signaling molecules to drive cytotoxic granule release, cytokine production, and target-cell lysis. MICA-NKG2D signaling can also influence macrophages and $\gamma\delta$ T cells. Soluble MICA shed from the cell surface can dampen or alter immune responses, contributing to tumor immune evasion. Stress, inflammation, and proteolytic shedding shape the net effect on immune surveillance.

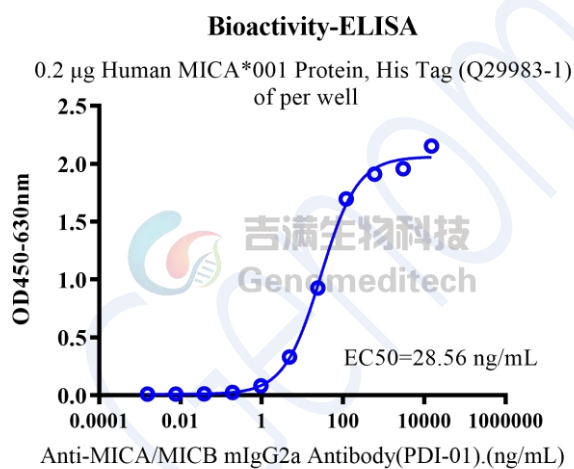
Version:4.0

SDS-PAGE

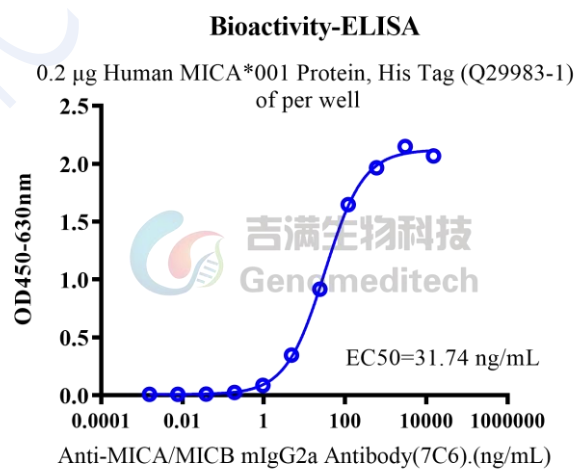


On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

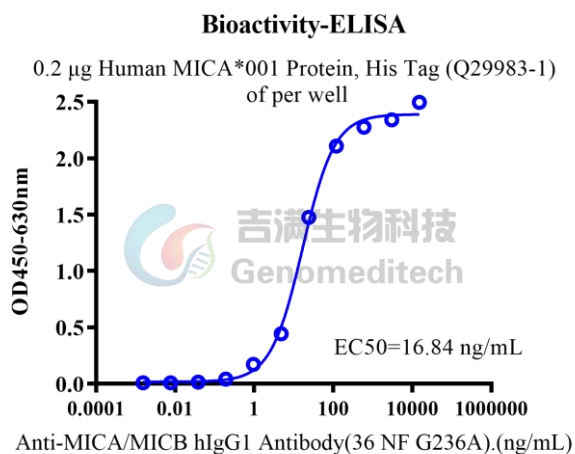
Bioactivity-ELISA



Human MICA*001 Protein, His Tag (Q29983-1) (Catalog # GM-88550RP) was immobilized at 2 μ g/ml (100 μ L/well). Increasing concentrations of Anti-MICA/MICB mIgG2a Antibody(PDI-01) (Catalog # GM-52540AB) were added.



Human MICA*001 Protein, His Tag (Q29983-1) (Catalog # GM-88550RP) was immobilized at 2 μ g/ml (100 μ L/well). Increasing concentrations of Anti-MICA/MICB mIgG2a Antibody(7C6) (Catalog # GM-51336AB) were added.



Human MICA*001 Protein, His Tag (Q29983-1) (Catalog # GM-88550RP) was immobilized at 2 µg/ml (100 µL/well). Increasing concentrations of Anti-MICA/MICB hIgG1 Antibody(36 NF G236A) (Catalog # GM-48843AB) were added.