

Human $\gamma\delta 2$ TCR Protein

Cat. No. TCR-HM2GD



Description	
Source	Recombinant Human $\gamma\delta 2$ TCR Protein is expressed from HEK293. Both the C-termini of the TRGV9 and TRDV2 chains are fused with a human IgG1 Fc tag and an Avi tag, respectively. It contains Ala21-Val121(TRGV9) & Ala20-Thr115(TRDV2).
Accession	Q99603(TRGV9)&A0JD36(TRDV2)
Molecular Weight	The protein has a predicted MW of 55.45 kDa & 56.66 kDa. Due to glycosylation, the protein migrates to 70-90 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.1 EU per μ g by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage	
Formulation	Lyophilized from 0.22 μ m filtered solution in PBS, 8% trehalose (pH 7.4).
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background	
$\gamma\delta 2$ T cells are a major human $\gamma\delta$ T cell subset defined by the expression of a Vγ9Vδ2 T-cell receptor (TCR). Unlike conventional $\alpha\beta$ T cells, they do not recognize peptide-MHC complexes but instead sense phosphoantigens via butyrophilin family members. They play key roles in cancer surveillance and anti-microbial immunity, exerting potent cytotoxic functions upon activation. Their effector maturation is accompanied by distinct phenotypic changes and modulated by natural killer receptors such as NKG2D and CD94/NKG2A. Due to their broad and MHC-independent tumor recognition, they are considered a promising target for cancer immunotherapy.	

Assay Data

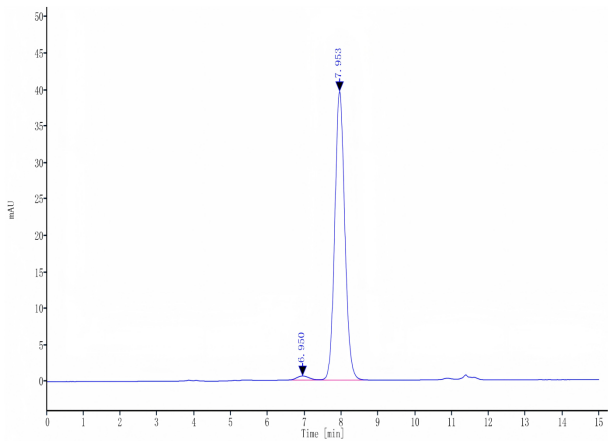
Bis-Tris PAGE



Human $\gamma\delta 2$ TCR on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data

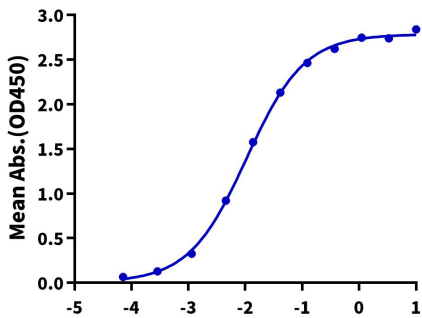


The purity of Human $\gamma\delta 2$ TCR is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

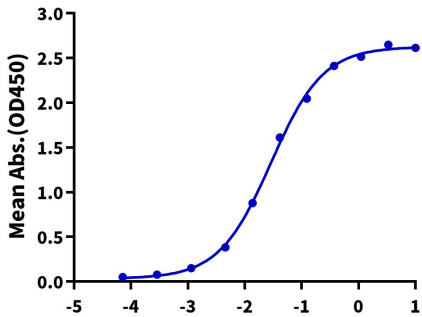
Human $\gamma\delta 2$ TCR, hFc Tag ELISA
0.2 μ g Human $\gamma\delta 2$ TCR, hFc Tag Per Well



Immobilized Human $\gamma\delta 2$ TCR, hFc Tag at 2 μ g/ml (100 μ l/well) on the plate. Dose response curve for Biotinylated Anti- $\gamma\delta 2$ TCR Antibody, hFc Avi Tag with the EC50 of 10.6ng/ml determined by ELISA.

ELISA Data

Human $\gamma\delta 2$ TCR, hFc Tag ELISA
0.1 μ g Human $\gamma\delta 2$ TCR, hFc Tag Per Well



Immobilized Human $\gamma\delta 2$ TCR, hFc Tag at 1 μ g/ml (100 μ l/well) on the plate. Dose response curve for Biotinylated Anti- $\gamma\delta 2$ TCR Antibody, hFc Avi Tag with the EC50 of 29.0ng/ml determined by ELISA.