Biotinylated Human KRAS G12D TCR&CD3 Complex Nanodisc

Cat. No. TCC-HM102

Description

Source	Recombinant Biotinylated Human KRAS G12D TCR&CD3 Complex Nanodisc is expressed from HEK293. Both the biotin and the His tag are located on the C-terminus of the KRAS G12D TCR.
	It contains KRAS G12D specific TCR (JD1a41b1), CD3ε&CD3γ, CD3ε&CD3δ, and CD3ζ dimers.
Molecular Weight	The protein has a predicted MW of 196.0 kDa.
Endotoxin	Less than 1 EU per μg by the LAL method.

Formulation and Storage

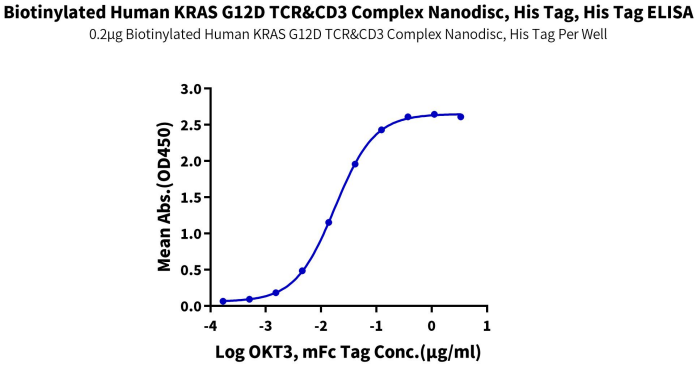
Formulation	Supplied as 0.22 μm filtered solution in PBS, 200mM L-arginine (pH 7.4). Notice: Not recommended for flow cytometry.
Storage	Valid for 6 months from date of receipt when stored at -80°C. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

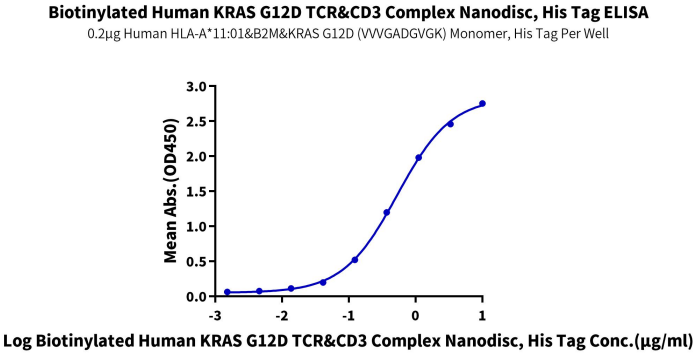
The JD1a41b1 TCR is an engineered, high-affinity T-cell receptor that strictly recognizes the peptide fragment of KRAS G12D (VVVGADGVGK) presented on the HLA-A*11:01 only. Cluster of Differentiation 3 (CD3) is a multimeric protein complex and T cell co-receptor that plays an essential role in adaptive immune responses. These CD3 dimers bind non-covalently to the TCR to form the TCR&CD3 complex on the cell surface.

Assay Data

ELISA Data

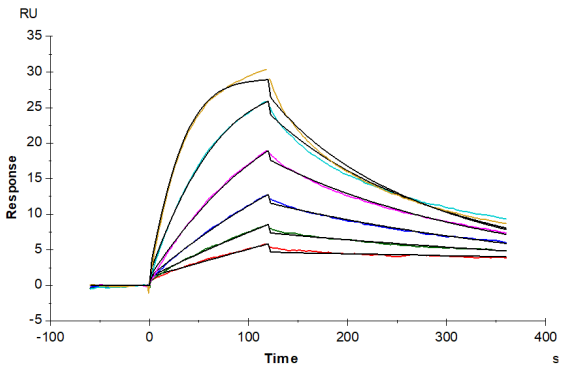


Immobilized Biotinylated Human KRAS G12D TCR&CD3 Complex Nanodisc, His Tag at 2μg/ml (100μl/well) on the streptavidin precoated plate (5μg/ml). Dose response curve for OKT3, mFc Tag with the EC50 of 17.5ng/ml determined by ELISA.



Immobilized Human HLA-A*11:01&B2M&KRAS G12D (VVVGADGVGK) Monomer, His Tag at 2μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Human KRAS G12D TCR&CD3 Complex Nanodisc, His Tag with the EC50 of 0.53μg/ml determined by ELISA.

SPR Data



Biotinylated Human KRAS G12D TCR&CD3 Complex Nanodisc, His Tag captured on CM5 Chip via Streptavidin can bind OKT3, mFc Tag with an affinity constant of 0.21 nM as determined in SPR assay (Biacore T200).

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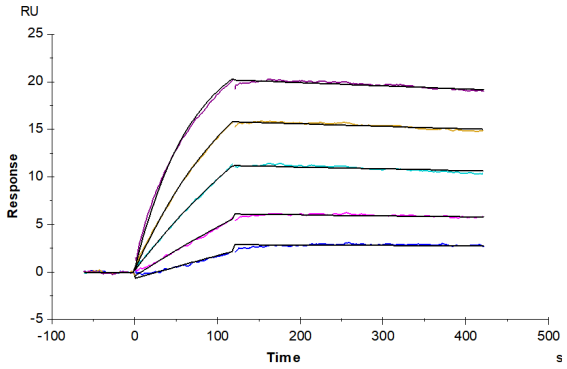
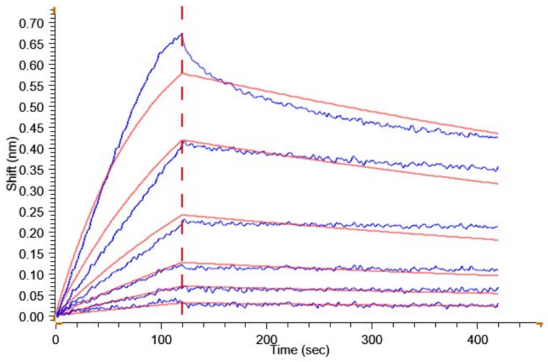
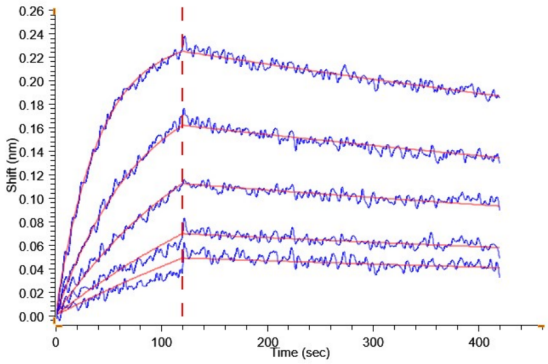


Biotinylated Human KRAS G12D TCR&CD3 Complex Nanodisc, His Tag captured on CM5 Chip via Streptavidin can bind Human HLA-A*11:01&B2M&KRAS G12D (VVVGADGVGK) Monomer, His Tag with an affinity constant of 0.47 nM as determined in SPR assay (Biacore T200).

BLI Data



Loaded Biotinylated Human KRAS G12D TCR&CD3 Complex Nanodisc, His Tag on Streptavidin-Biosensor can bind OKT3, mFc Tag with an affinity constant of 0.90 nM as determined in BLI assay (Gator® Prime).



Loaded Biotinylated Human KRAS G12D TCR&CD3 Complex Nanodisc, His Tag on Streptavidin-Biosensor can bind Human HLA-A*11:01&B2M&KRAS G12D (VVVGADGVGK) Monomer, His Tag with an affinity constant of 2.60 nM as determined in BLI assay (Gator® Prime).