Synonym

PVR,FLJ25946,PVS,CD155,TAGE4,HVED,NECL5

Source

Human CD155, Mouse IgG2a Fc Tag(CD5-H5254) is expressed from human 293 cells (HEK293). It contains AA Trp 21 - Asn 343 (Accession # NP_006496.4).
Predicted N-terminus: Trp 21

Molecular Characterization

CD155(Trp 21 - Asn 343) NP_006496.4	mFc(Glu 98 - Lys 330) P01863

This protein carries a mouse IgG2a Fc tag at the C-terminus.

The protein has a calculated MW of 62.2 kDa. The protein migrates as 70-100 kDa under reducing (R) condition, and 130-160 kDa under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in
Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

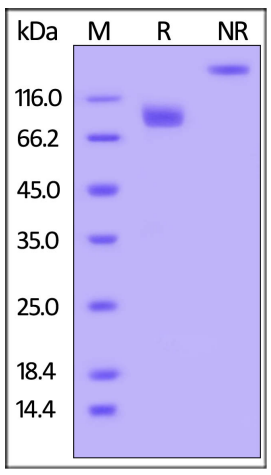
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

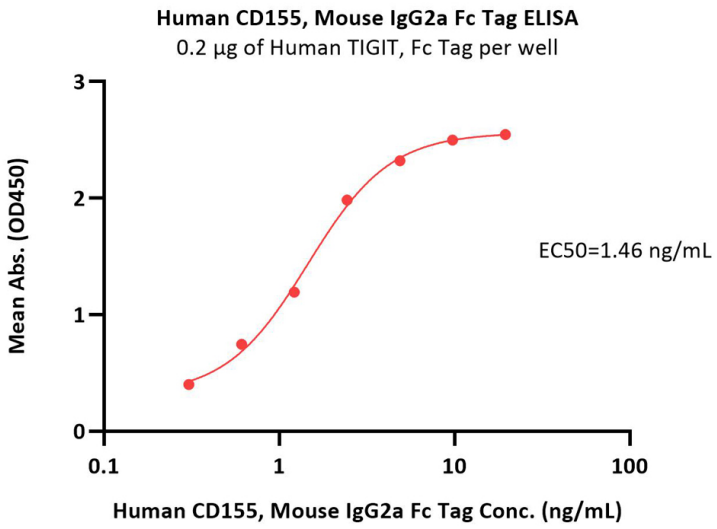
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

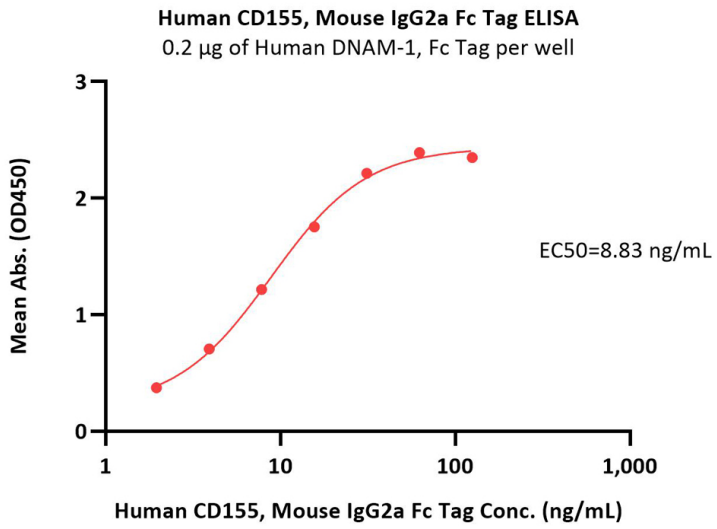


Human CD155, Mouse IgG2a Fc Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

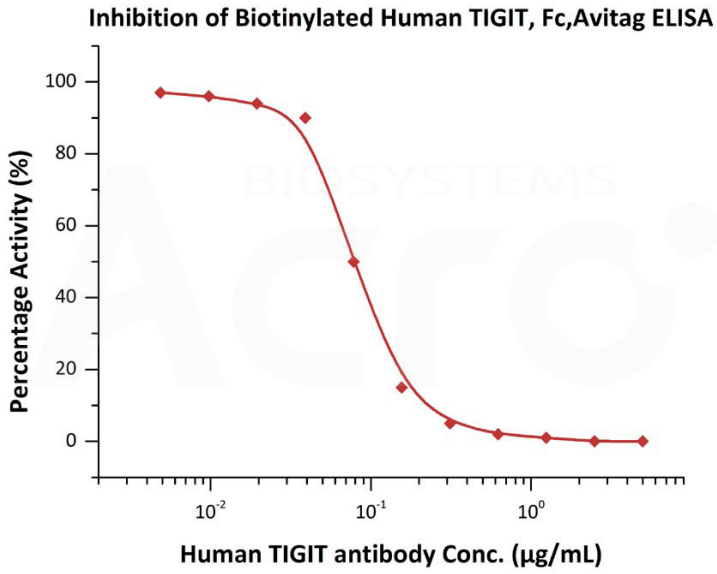
Bioactivity-ELISA



Immobilized Human TIGIT, Fc Tag (Cat. No. TIT-H5254) at 2 μg/mL (100 μL/well) can bind Human CD155, Mouse IgG2a Fc Tag (Cat. No. CD5-H5254) with a linear range of 0.3-2 ng/mL (QC tested).

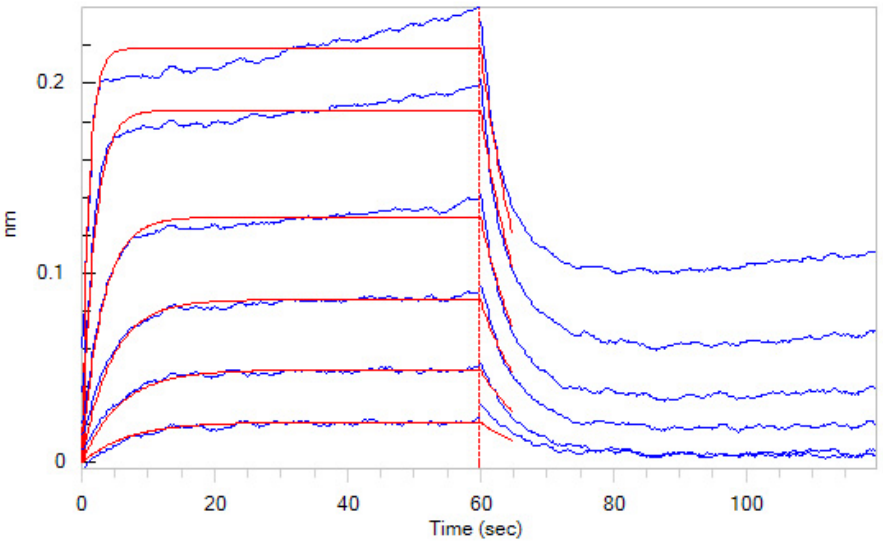


Immobilized Human DNAM-1, Fc Tag (Cat. No. DN1-H5257) at 2 μg/mL (100 μL/well) can bind Human CD155, Mouse IgG2a Fc Tag (Cat. No. CD5-H5254) with a linear range of 1-16 ng/mL (Routinely tested).

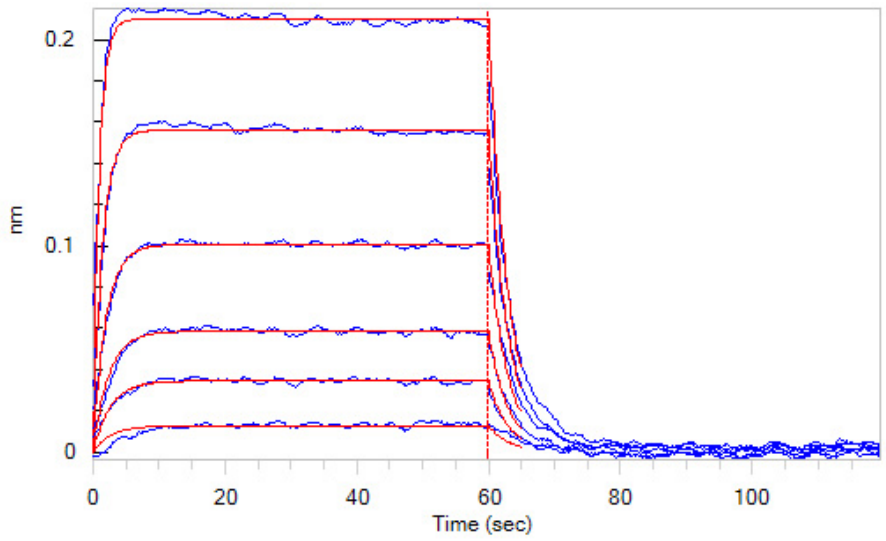


Serial dilutions of Human TIGIT Neutralizing antibody were added into Human CD155, Mouse IgG2a Fc Tag (Cat. No. CD5-H5254): Biotinylated Human TIGIT, Fc,Avitag (Cat. No. TIT-H82F1) binding reactions. The half maximal inhibitory concentration (IC50) is 0.08116 μg/mL (Routinely tested).

Bioactivity-BLI



Loaded Human CD155, Mouse IgG2a Fc Tag (Cat. No. CD5-H5254) on Protein A Biosensor, can bind Human TIGIT, His Tag with an affinity constant

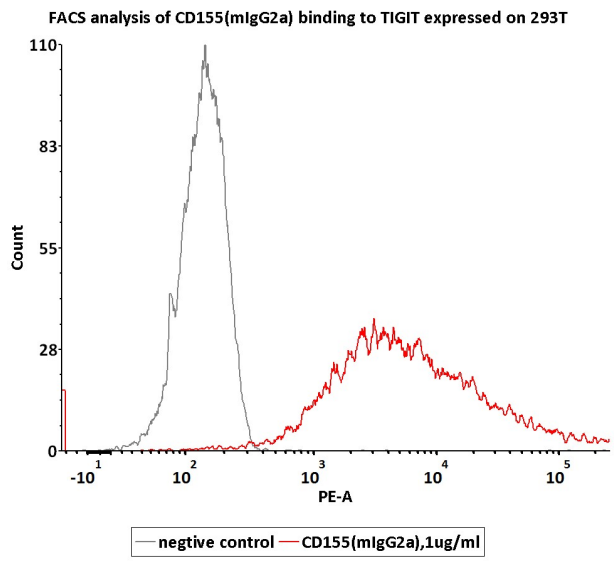


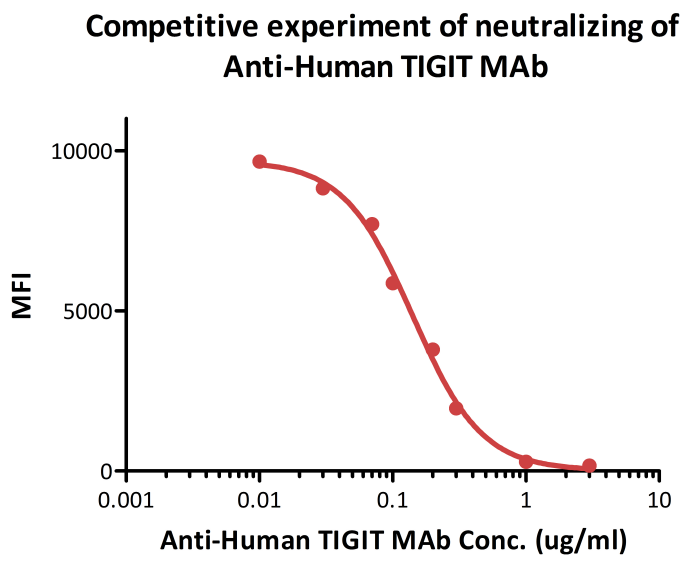
Loaded Human CD155, Mouse IgG2a Fc Tag (Cat. No. CD5-H5254) on Protein A Biosensor, can bind Human DNAM-1, His Tag (Cat. No. DN1-

of 0.24 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

H52H6) with an affinity constant of 0.57 μM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Bioactivity-FACS





FACS assay shows that Human CD155, Mouse IgG2a Fc Tag (Cat. No. CD5-H5254) can bind to 293T cell overexpressing human TIGIT. The concentration of CD155 is 1 μg/mL (Routinely tested).

FACS analysis shows that the binding of Human CD155, Mouse IgG2a Fc Tag (Cat. No. CD5-H5254) to 293T overexpressing TIGIT was inhibited by increasing concentration of neutralizing Anti-Human TIGIT MAb. The concentration of CD155 used is 1 μg/mL. The IC50 is 0.1413 μg/mL (Routinely tested).

Background

CD155 is a Type I transmembrane glycoprotein in the immunoglobulin superfamily. Commonly known as Poliovirus Receptor (PVR) due to its involvement in the cellular poliovirus infection in primates, CD155's normal cellular function is in the establishment of intercellular adherens junctions between epithelial cells. CD155/PVR was originally isolated based on its ability to mediate polio virus attachment to host cells. The fulllength (or CD155 alpha isoform) is synthesized as a 417 amino acid (aa) precursor that contains a 20 aa signal sequence, a 323 aa extracellular region, a 24 aa TM segment and a 50 aa cytoplasmic tail. The extracellular region contains one N terminal V type and two C2 type Ig like domains.
CD155 is a transmembrane protein with 3 extracellular immunoglobulin-like domains, D1-D3, where D1 is recognized by the virus. Low resolution structures of CD155 complexed with poliovirus have been obtained using electron microscopy while a high resolution structures of theectodomain D1 and D2 of CD155 were solved by x-ray crystallography.