Bioactive, Recombinant Mouse CD155 Protein Dimer, His Tag
Product Code: CSP-25184-01
For Research Use Only (RUO)

Protein Name
CD155

Alternate Name(s)
PVR, HVED, NECL5, Necl-5, PVS, FLJ25946, and TAGE4

Protein Construct
CD155 protein dimer contains a CD155 extracellular domain (Uniprot# Q8K094) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight
86 kDa. The migration range of the dimer protein with glycosylation under non-reduced condition is ~190 kDa on SDS PAGE.

Shipping Conditions
Frozen Dry Ice

Expression Host
HEK293T

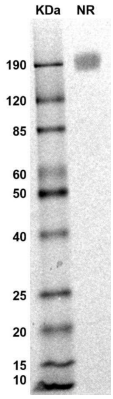
Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Amino Acid Range
D29-L348

Formulation
0.22µm filtered PBS, pH 7.4

Stability & Storage
-80^{0}C

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: CD155 dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reduced condition is ~190 kDa on SDS PAGE.

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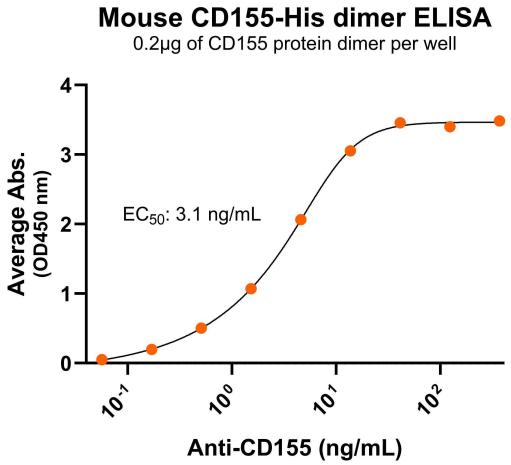
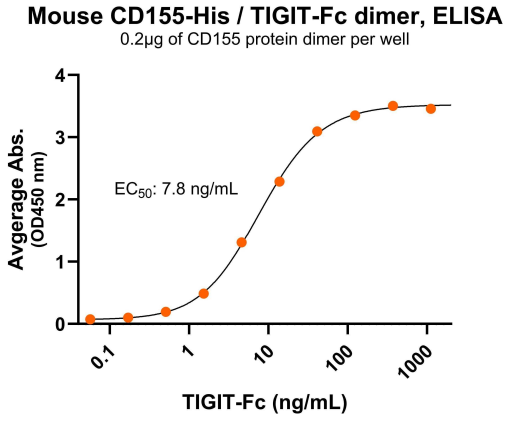
Bioactivity – Antibody Binding



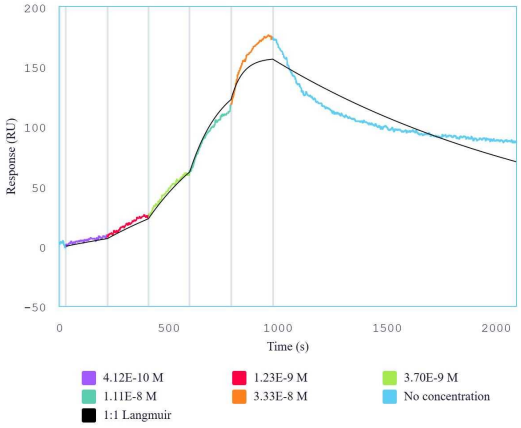
Immobilized mouse CD155 protein dimer, His Tag (Cat. No. CSP-25184-01) at 2 μg/mL (100 μL/well) can bind anti-mouse CD155 monoclonal antibody with half maximal effective concentration (EC50) range of 1.6-6.3 ng/mL (QC tested).

Bioactivity – Ligand Binding



Immobilized mouse CD155 protein dimer, His Tag (Cat. No. CSP-25184-01) at 2 μg/mL (100 μL/well) can bind mouse TIGIT dimer protein, Fc Tag (Cat. No. CSP-25182-04) with half maximal effective concentration (EC50) range of 3.9-15.6 ng/mL (QC tested).

Bioactivity – SPR



Immobilized mouse TIGIT protein dimer, human Fc tag (CSP-25182-04) can bind mouse CD155 protein dimer, His tag (Cat. No. CSP-25184-01) with a KD of 0.7-2.6 nM as determined by SPR.

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Background

Cluster of differentiation 155 (CD155) is a Type I transmembrane glycoprotein that belongs to the Nectin/Nectin-like family. CD155 is also known as Poliovirus Receptor (PVR), HVED, NECL5, Necl-5, PVS, TAGE4, and FLJ25946. CD155 protein consists of 3 extracellular immunoglobulin-like (Ig-like) domains (D1-D3), one transmembrane region, and a C-terminal cytoplasmic domain. CD155 is widely expressed on various cell types and often overexpressed on cancer cells. Upregulation of CD155 in several types of human cancers is associated with a poor prognosis. Although CD155 itself is not an immune checkpoint, it's a ligand for checkpoint receptors like TIGIT (T-cell immunoreceptor with Ig and ITIM domains), CD226 (DNAM-1), and CD96. The interactions between CD155 and its receptors on immune cells modulate immune responses, such as T cells and natural killer (NK) cells. This makes CD155 a critical player in immune regulation and a promising target in checkpoint cancer therapies. Mouse CD155 shares 60–70% amino acid identity with human CD155. While homologous, there are species-specific differences in ligand binding and immune interactions.