

Product Name: Bioactive, Mouse TIGIT Protein Dimer, FLAG-His Tag

Product Code: CSP-25182-02

FOR RESEARCH USE ONLY (RUO)

Protein Name: TIGIT-Flag-His

Alternate Name(s): VSIG9, VSTM3

Expression Host
HEK293T

Amino Acid Range
1: T29-G148

Protein Construct

Mouse TIGIT dimer protein contains a TIGIT extracellular domain (UniProt# P86176) fused with a proprietary cis-dimer motif followed by a tandem FLAG-His tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight

45 kDa. The migration range of the heterodimer protein with glycosylation under non-reducing condition is between 60 and 85 kDa on SDS PAGE.

Purity

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

Formulation

0.22µm filtered PBS, pH 7.4

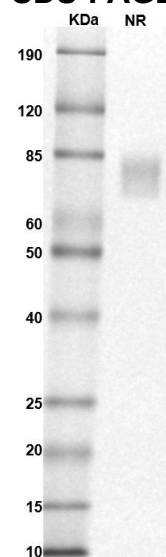
Stability & Storage

-80°C

Shipping Conditions

Frozen Dry Ice

SDS-PAGE



MW: Molecular Weight marker reduced condition

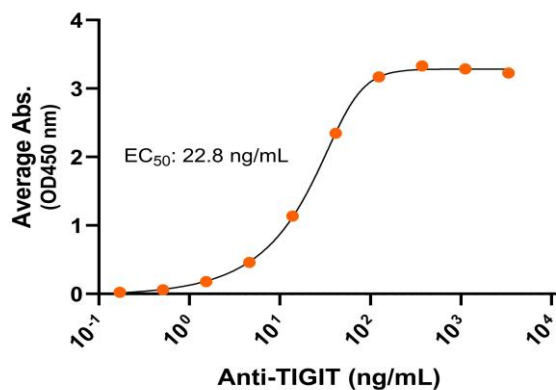
NR: TIGIT dimer under non-reduced condition

The migration range of the heterodimer protein with glycosylation under non-reducing condition is between 60 and 85 kDa on SDS PAGE.

Antibody Binding

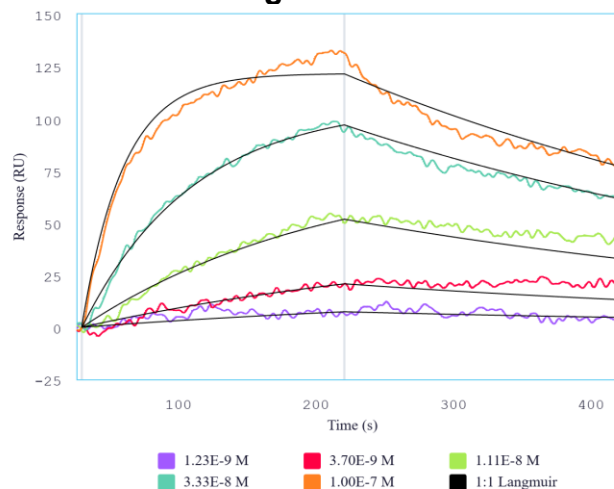
Mouse TIGIT-FLAG-His dimer, ELISA

0.2 µg of TIGIT protein dimer per well



Immobilized mouse TIGIT protein dimer, FLAG-His Tag (Cat. No. CSP-25182-02) at 2 µg/mL (100 µL/well) can bind anti-mouse TIGIT polyclonal antibody with half maximal effective concentration (EC₅₀) range of 11.4-45.6 ng/mL (QC tested).

Label Free Binding

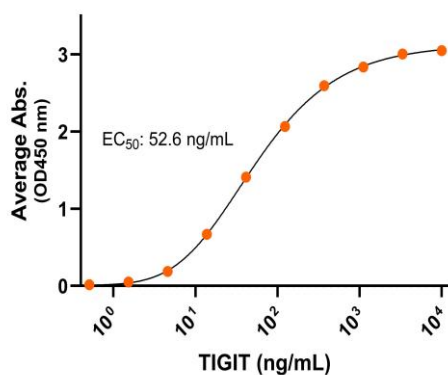


Immobilized mouse TIGIT protein dimer, FLAG-His tag (Cat. No. CSP-25182-02) can bind mouse CD155 protein dimer, His Tag (Cat. No. CSP-25184-01) with a K_D of 2.4-9.7 nM as determined by LSPR (Nicoya Alto).

Ligand Binding

Mouse TIGIT-FLAG-His dimer / CD155-His dimer, ELISA

0.2 µg of CD155 protein dimer per well



Immobilized mouse CD155 protein dimer, His Tag (Cat. No. CSP-25184-01) at 2 µg/mL (100 µL/well) can bind mouse TIGIT protein dimer, FLAG-His Tag (Cat. No. CSP-25182-02) with half maximal effective concentration (EC₅₀) range of 26.3-105.2 ng/mL (QC tested).

Background

TIGIT (T-cell immunoreceptor with Ig and ITIM domains) is also known as VSIG9 (V-set and immunoglobulin domain-containing protein 9) and VSTM3 (V-set and transmembrane domain-containing protein 3). TIGIT is a Type I membrane protein containing an immunoglobulin variable (Ig-V) domain, a transmembrane domain and cytoplasmic domain. TIGIT is an immune receptor present on peripheral memory and regulatory CD4⁺ T cells and natural killer (NK) cells. TIGIT is a pivotal immune checkpoint receptor that fine-tunes T-cell and NK-cell responses. Its dual role in promoting tolerance (via Tregs) and suppressing antitumor immunity makes it a compelling therapeutic target. TIGIT binds to CD155 (the poliovirus receptor, PVR) with high affinity and binds to CD112 (PVRL2) with lower affinity. Nectin-4 is also a ligand for TIGIT. While structurally and functionally similar to human TIGIT, mouse TIGIT is a species-specific tool essential for translational research in cancer immunotherapy.