Bioactive, Recombinant Rhesus macaque TIGIT Protein Dimer, His Tag
Product Code: CSP-25298-01
For Research Use Only (RUO)

**Protein Name**
TIGIT

**Alternate Name(s)**
VSIG9, VSTM3

**Protein Construct**
TIGIT dimer protein contains a TIGIT extracellular domain (UniProt# A0A5F8AKQ5) 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**
43 kDa. The migration range of the heterodimer protein with glycosylation under non-reducing conditions is between 60 and 85 kDa on SDS PAGE.

**Shipping Conditions**
Frozen Dry Ice

**Expression Host**
HEK293T

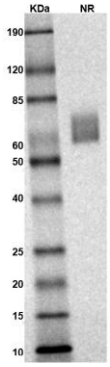
**Purity**
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

**Amino Acid Range**
M22-P142

**Formulation**
0.22µm filtered PBS, pH 7.4

**Stability & Storage**
-80$^0$C

## 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 conditions is between 60 and 85 kDa on SDS PAGE.

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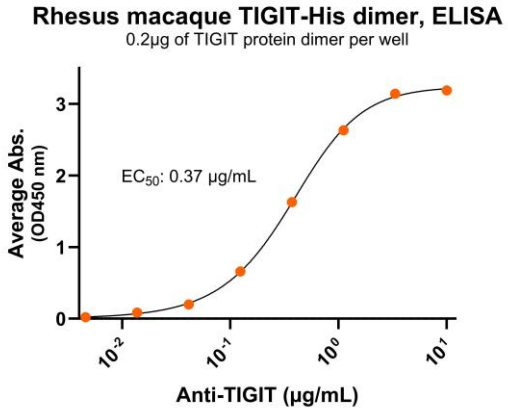
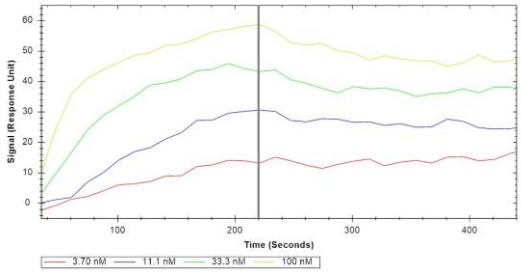
## Bioactivity – Antibody Binding




Immobilized Rhesus macaque TIGIT protein dimer, His Tag (CSP-25298-01) at 2 μg/mL (100 μL/well) can bind anti-human TIGIT monoclonal antibody with half maximal effective concentration (EC50) range of 0.2-0.7 μg/mL (QC tested).

## Bioactivity – SPR




Immobilized Rhesus macaque TIGIT protein dimer, His tag (Cat. No. CSP-25298-01) can bind Rhesus macaque PVR protein dimer, His tag (Cat. No. CSP-297-01) with a KD of 0.5-1.9 nM as determined by LSPR (Nicoya Alto).

## 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, Rhesus macaque TIGIT is a species-specific tool essential for translational research in cancer immunotherapy.