For Research Use Only

Recombinant Human TIGIT protein (His Tag)

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Catalog Number: Eg0749

Basic Information

Species:
Human

Purity:
>95 %, SDS-PAGE

Tag:
His Tag

EC50:
100-400 ng/mL

Technical Specifications

Purity:
>95 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/μg protein, LAL method

Source:
HEK293-derived Human TIGIT protein Met22-Pro141 (Accession# Q495A1-1) with a His tag at the C-terminus.

GeneID:
201633

Accession:
Q495A1-1

Predicted Molecular Mass:
13.9 kDa

SDS-PAGE:
15-18 kDa, reducing (R) conditions

Formulation:
Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Immobilized Human TIGIT (His tag) at 2 μg/mL (100 μL/well) can bind Human CD155 (hFc tag, Myc tag, His tag) with a linear range of 100-400 ng/mL.

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20℃ to -80℃ as lyophilized proteins.
- 3 months, -20℃ to -80℃ under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

T cell immunoreceptor with Ig and ITIM domains(TIGIT), also named as V-set and immunoglobulin domain-containing protein 9 (VSIG9), V-set and transmembrane do-maincontaining protein 3 (VSTM3) and Washington University cell adhesion molecule (WUCAM), is a co-inhibitory molecule belonging to the immunoglobulin superfamily that was first discovered in 2009. It consists of an extracellular immunoglobulin variable (IgV) domain, a type I transmembrane domain and an intracellular domain with an immunoreceptor tyrosine-based inhibitory motif (ITIM) and an immunoglobulin tail tyrosine (ITT)-like motif. TIGIT is an inhibitory receptor expressed on several types of lymphocytes. Efficacy of antibody blockade of TIGIT in cancer immunotherapy is currently widely being investigated in both pre-clinical and clinical studies. In multiple cancers TIGIT is expressed on tumor-infiltrating cytotoxic T cells, helper T cells, regulatory T cells and NK cells, and its main ligand CD155 is expressed on tumor-infiltrating myeloid cells and upregulated on cancer cells, which contributes to local suppression of immune-surveillance.

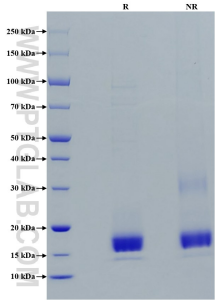
References

1.Qiu D, et al. (2022) Clin Exp Med Jun;23(2):165-174.
2.Boles KS, et al. (2009) Eur J Immunol 39(3):695–703.
3.Levin SD, et al. (2011) Eur J Immunol 41(4):902–15.
4.Harjunpää H, et al. (2020) Clin Exp Immunol 200(2):108–19.
5.Jin S, et al. (2022) Front. Oncol. Dec 20;12:1091782.
6.Ge Z, et al. (2021) Front. Immunol. Jul 22;12:699895.

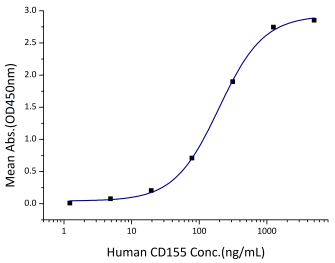
Synonyms

TIGIT, T-cell immunoreceptor with Ig and ITIM domains, VSIG9, VSTM3

Selected Validation Data



Purity of Recombinant Human TIGIT was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



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