For Research Use Only

Recombinant Human TNFR2/CD120b protein (Myc Tag, His Tag)

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Catalog Number: Eg0086

Basic Information

ED50:
1-5 ng/mL

Species:
Human

Purity:
>90 %, SDS-PAGE

GeneID:
7133

Accession:
P20333-1

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<1.0 EU/μg protein, LAL method

Source:
HEK293-derived Human TNFR2 protein Leu23-Asp257 (Accession# P20333-1) with a Myc tag and a His tag at the C-terminus.

Predicted Molecular Mass:
30.4 kDa

SDS-PAGE:
48-55 kDa, reducing (R) conditions

Formulation:
Lyophilized from sterile PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

1. Immobilized Human TNFα (GST tag) at 2 μg/mL (100 μL/well) can bind Human TNFR2 (Myc tag, His tag) with a linear range of 1-5 ng/mL.
2. Measured by its ability to inhibit TNF-α mediated cytotoxicity in the L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is 50-200 ng/mL in the presence of 0.25 ng/mL recombinant human TNF-α.

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

Tumor necrosis factor-alpha (TNFA/TNFSF2) is a multifunctional cytokine that plays a key role in regulating inflammation, immune functions, host defense, and apoptosis. TNFA signals through two distinct cell surface receptors, TNFR1 (TNFRSF1A, CD120a, p55) and TNFR2 (TNFRSF1B, CD120b, p75). TNFR2 is a kind of receptor with high affinity for TNFSF2/TNF-alpha and approximately 5-fold lower affinity for homotrimeric TNFSF1/lymphotoxin-alpha. The TRAF1/TRAF2 complex recruits the apoptotic suppressors BIRC2 and BIRC3 to TNFRSF1B/TNFR2. This receptor mediates most of the metabolic effects of TNF-alpha. In contrast to TNFR1, TNFR2 does not have a death domain. TNFR2 only signals for antiapoptotic reactions. However, recent evidence indicates that TNFR2 also signals to induce TRAF2 degradation. Various defects in the TNFR2 pathway, due to polymorphisms in the TNFR2 gene, upregulated expression of TNFR2 and TNFR2 shedding, have been implicated in the pathology of several autoimmune disorders.

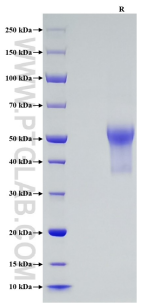
References

1.Islam A. et al. (2006). J Biol Chem. 281(10):6860-73.
2.Pan S. et al. (2002). Mol Cell Biol. 22(21):7512-23.
3.Faustman D. et al. (2010). Nat Rev Drug Discov. 9(6):482-93.

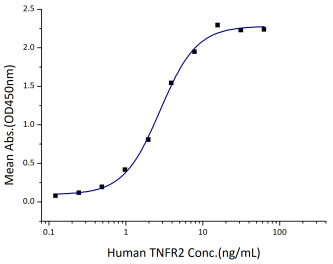
Synonyms

CD120b, Etanercept, p75, p75TNFR, p80 TNF alpha receptor, p80 TNF-alpha receptor, TBP 2, TBPII, TNF R II, TNF R2, TNF R75, TNF Receptor 2, TNF Receptor II, TNF RII, TNFBR, TNFR II, TNFR1B, TNFR2, TNF-R2, TNFR80, TNF-RII, TNFR-II, TNFRSF1B, Tumor necrosis factor receptor superfamily member 1b, membrane form, Tumor necrosis factor-binding protein 2

Selected Validation Data



Purity of Recombinant Human TNFR2 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.



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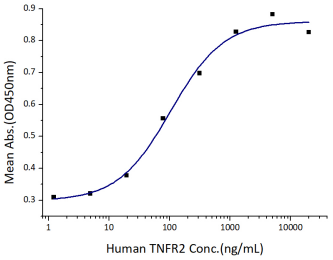

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