



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD120B Protein
Catalog Number: hRP-1802
Manufacturer: LD Biopharma, Inc.

Introduction

The protein encoded by human tumor necrosis factor receptor superfamily member 1B (TNFRSF1B, also named as CD120B) gene is a member of the TNF-receptor superfamily. This protein and TNF-receptor 1 form a heterocomplex that mediates the recruitment of two anti-apoptotic proteins, c-IAP1 and c-IAP2, which possess E3 ubiquitin ligase activity. The function of IAPs in TNF-receptor signalling is unknown, however, c-IAP1 is thought to potentiate TNF-induced apoptosis by the ubiquitination and degradation of TNF-receptor-associated factor 2, which mediates anti-apoptotic signals. Knockout studies in mice also suggest a role of this protein in protecting neurons from apoptosis by stimulating anti-oxidative pathways.

Full-length extracellular domain of human CD120B cDNA (23 - 257aa, derived from BC052977) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein was expressed in *E. coli* as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: CD120B (TNFRSF1B; p75TNFR; TBPII; TNF-R-II)
Accession Number: NP_001057.1
Species: Human
Size: 40 µg / Vial
Composition: 0.4 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Pontejo SM, et al., *Comparative Biochemical and Functional Analysis of Viral and*



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Human Secreted Tumor Necrosis Factor (TNF) Decoy Receptors J. Biol. Chem. 290 (26), 15973-15984 (2015)

Zeng Z, et al., *NRH2 induces cell apoptosis of cerebral tissues around hematomas after intracerebral hemorrhage through up-regulating proNGF, sortilin and p75NTR expressions.* Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi 31 (4), 532-536 (2015)

Shiga T, et al., *TNF inhibitors directly target Th17 cells via attenuation of autonomous TNF/TNFR2 signalling in psoriasis.* J. Dermatol. Sci. 77 (1), 79-81 (2015)

Pircher J, et al., *Hepatitis C virus induced endothelial inflammatory response depends on the functional expression of TNFalpha receptor subtype 2.* PLoS ONE 9 (11), E113351 (2014)

Applications

1. May be used for in vitro CD120B mediated anti-apoptotic signals pathway regulation study for various cells, such as macrophage, neuronal cells, with this protein either as soluble factor or as coating matrix protein.
2. May be used for protein-protein interaction mapping.
3. May be used as enzymatic substrate for various proteases.
4. Potential biomarker protein for monitoring macrophage activation status in various diseases.
5. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGFLLPAQVAFTPYAPEPGSTCRLREYYDQTAQMCCSKC
SPGQHAKVFCTKTSDTVCDSCEDSTYQTQLWNWVPECLSCGSRCSDDQVETQACTREQNRICTCR
PGWYCALSKQEGCRLCAPLRKCRPGFGVARPGTETSDVVCKPCAPGTFSNSTTSSTDICRPHQIC
NVVAIPGNASMDAVCTSTSPTRSMAPGAVHLPQPVSTRSQHTQPTPEPSTAPSTSFLLPMGPSP
PAEGSTGD