



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD96 Protein
Catalog Number: hRP-2105
Manufacturer: LD Biopharma, Inc.

Introduction

The protein encoded by human T-cell surface protein tactile (CD96) gene is a receptor, which may be involved in adhesive interactions of activated T and NK cells during the late phase of the immune response. It promotes NK cell-target adhesion by interacting with PVR present on target cells. CD96 may function at a time after T and NK cells have penetrated the endothelium using integrins and selectins, when they are actively engaging diseased cells and moving within areas of inflammation.

Full-length extracellular domain of human CD96 cDNA (22 – 519aa) was constructed with codon optimization gene synthesis and expressed with a human N-terminalT7-His-TEV cleavage site Tag (29aa) fusion. 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: CD96 (TACTILE)
Accession Number: NP_937839
Species: Human
Size: 20 µg / Vial
Composition: 0.2 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

William C Dougall., et al., *TIGIT and CD96: new checkpoint receptor targets for cancer immunotherapy*. Immunol Rev. Mar; 276(1): 112-120. (2017)



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Zhang, W., et al., *Expressions of CD96 and CD123 in Bone Marrow Cells of Patients with Myelodysplastic Syndromes*. Clin. Lab. 61 (10), 1429-1434 (2015)

Chavez-Gonzalez A, et al., *Expression of CD90, CD96, CD117, and CD123 on different hematopoietic cell populations from pediatric patients with acute myeloid leukemia* Arch. Med. Res. 45 (4), 343-350 (2014)

Eriksson EM, et al., *Differential expression of CD96 surface molecule represents CD8(+) T cells with dissimilar effector function during HIV-1 infection*. PLoS ONE 7 (12), E51696 (2012)

Hosen N, et al., *CD96 is a leukemic stem cell-specific marker in human acute myeloid Leukemia*. Proc. Natl. Acad. Sci. U.S.A. 104 (26), 11008-11013 (2007)

Applications

1. May be used for in vitro CD96 mediated T lymphocyte or NK cell activities regulation study with this protein either as soluble factor or as coating matrix protein.
2. May be used for protein-protein interaction assay.
3. Potential therapeutic protein, which may be used as checkpoint inhibitor (anti-CD96 antibody) for various cancer therapy.
4. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFVWEKTVNTEENVYATLGSDVNLTCQTQTVGF
FVQMOWSKVTNKIDLI AVYHPQYGFYCA YGRPCESLVTFTETPENGSKWTLHLRNMSCSV
SGRYECMLVLYPEGIQTKIYNLLIQTHVTADEWNSNHTIEIEINQTL EIPCFQNSSSKIS
SEFTYAWSVENSSTDSWVLLSKGIKEDNGTQETLISQNHLSNSTLLKDRVKLGTDYRLH
LSPVQIFDDGRKFSCHIRVGP NKILRSSTTVKVF AKPEIPVIVENNSTDV LVERRFTCLL
KNVFPKANITW FIDGSFLHDEKEGIYITNEERK GKDG FLELKS VLTRVHSNKPAQSDNLT
IWCMA LSPVPGNKVWNISSEKITFLLGSEISS TDPPLSVTESTLDTQPSPASSVSPARYP
ATSSVTLVDVSALRPNTTPQPSNSSMTTRGFNYPWTSSGTDTKKSVSRIPSETYSSSPSG
AGSTLHDNVFTSTARAFSEVPTTANGSTKTNHVHITGIVVNKPKDGM