



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD6 Protein
Catalog Number: hRP-1059
Manufacturer: LD Biopharma, Inc.

Introduction

Human T-cell differentiation antigen CD6 gene encodes a protein found on the outer membrane of T-lymphocytes as well as some other immune cells. The encoded protein contains three scavenger receptor cysteine-rich (SRCR) domains and a binding site for an activated leukocyte cell adhesion molecule. The gene product is important for continuation of T cell activation. This gene may be associated with susceptibility to multiple sclerosis. Multiple transcript variants encoding different isoforms have been found for this gene.

Full-length extracellular domain of human CD6 cDNA (18 - 402 aa, Isoform_1, derived from BC033755) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal and 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: CD6 (TP120)
Accession Number: NP_006716
Species: Human
Size: 50 µg / Vial
Composition: 0.50 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Oliveira, M.I., et al., *CD6 attenuates early and late signaling events, setting thresholds for T-cell activation*. Eur. J. Immunol. 42 (1), 195-205 (2012)

Krintel, S.B., et al., *CD6 and syntaxin binding protein 6 variants and response to tumor*



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necrosis factor alpha inhibitors in Danish patients with rheumatoid arthritis. PLoS ONE 7 (6), E38539 (2012)

Kofler, D.M., et al., *The CD6 multiple sclerosis susceptibility allele is associated with alterations in CD4+ T cell proliferation. J. Immunol. 187 (6), 3286-3291 (2011)*

Applications

1. May be used for in vitro CD6 mediated T cell activation regulation study with this protein as either coating matrix protein or soluble factor.
2. May be used for protein-protein interaction assay development.
3. As antigen for specific antibody production.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFHPSPAPPDQLNTSSAESELWEPGERLPVRLTNGSS
SCSGTVEVRLEASWEPACGALWDSRAAEAVCRALGCGGAEAAASQLAPPPTPELPPPPAAGNTSVA
ANATLAGAPALLCSGAEWRLCEVVEHACRSDGRRARVTCAENRALRLVDGGGACAGRVEMLEHG
EWGSVCDDTDLEDAHVVCRQLGCGWAVQALPGLHFTPGRGPIHRDQVNCSGAEAYLWDCPGLP
GQHYCGHKEDAGAVCSEHQSWRLTGGADRCEGQVEVHFRGVWNTVCDSEWYPSEAKVLCQSLGC
GTAVERPGLPHSLSGRMYYSNNGEELTLSNCSWRFNNSNLCSQSLAARVLCASRSLHNLSTP
EVPASVQTVTIESSVTVKIENKESRELMLL