



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD355 Protein
Catalog Number: hRP-1832
Manufacturer: LD Biopharma, Inc.

Introduction

Human cytotoxic and regulatory T-cell molecule, (CRTAN, also named as CD355) gene encodes a type I transmembrane protein with V and C1-like Ig domains. It is up-regulated in CD4⁺ and CD8⁺ T cells. CD355 interacts with CADM1 promotes natural killer (NK) cell cytotoxicity and interferon-gamma (IFN-gamma) secretion by CD8⁺ cells in vitro as well as NK cell-mediated rejection of tumors expressing CADM3 in vivo.

Extracellular domain of human CD355 cDNA (18 – 287aa, Isoform-I) was constructed with codon optimization using gene synthesis technology 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: CD355 (CRTAM)
Accession Number: NP_062550.2
Species: Human
Size: 25 µg / Vial
Composition: 0.25 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

Rojas-Marquez C, et al., *CRTAM is negatively regulated by ZEB1 in T cells*. Mol. Immunol. 66 (2), 290-298 (2015)

Zhang S, et al., *Competition of cell adhesion and immune recognition: insights into the*



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interaction between CRTAM and nectin-like 2. Structure 21 (8), 1430-1439 (2013)

Dessarthe B, et al., *CRTAM receptor engagement by Necl-2 on tumor cells triggers cell death of activated Vgamma9Vdelta2 T cells. J. Immunol. 190 (9), 4868-4876 (2013)*

Du R, et al., *Genome-wide association study reveals class I MHC-restricted T cell-associated molecule gene (CRTAM) variants interact with vitamin D levels to affect asthma exacerbations. J. Allergy Clin. Immunol. 129 (2), 368-373 (2012)*

Applications

1. May be used for in vitro CD355 mediated CD4⁺ and CD8⁺ T cell activation regulation study with this protein either as soluble factor or as coating matrix protein.
2. May be used for protein-protein interaction mapping.
3. Potential biomarker/therapeutic protein for various cancer treatments by targeting CD355 with specific antibody.
4. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFSLTNHTETITVEEGQTLTLKCVTSLRKNSLQWLT
PSGFTIFLNEYPAKNSKYQLLHHSANQLSITVPNVTLQDEGVYKCLHYSVSTKEVKVIVLA
TPFKPILEASVIRKQNGEEHVLMCSTMRSKPPPQITWLLGNSMEVSGGTLHEFETDGKKCNTT
STLIIHTYGKNSTVDCIIRHRGLQGRKLVAPFRFEDLVTDEETASDALERNLSLSSQDPQPTST
VSVTEDSSTSEIDKEEKEQTTQDPDLTTEANPQYLGLARKKSG