

Recombinant Mouse LEUK Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51287

Size: 10ug, 100ug

Protein Name: Leukosialin (B-cell differentiation antigen LP-3) (Leukocyte sialoglycoprotein) (Lymphocyte antigen 48) (Ly-48) (Sialophorin) (CD antigen CD43) [Cleaved into: CD43 cytoplasmic tail (CD43-ct) (CD43ct)]

Synonym: Spn

UniProt ID: P15702

UniProt Link: www.uniprot.org/uniprotkb/P15702/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 395 AA

Molecular Weight: 40 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MALHLLLLFGACWVQVASPDSLQRTTMLPSTPHITAPSTSEAQNASPSVSVGSGTVDSKETISPWG
QTTIPVSLTPLETTELSSLETSAGASMSTPVPEPTASQEVSSKTSALLPEPSNVASDPPVTAANPVT
GPAANPVTGTAASTSISKGTSAPPTTVTTSSNETSGPSVATTVSSKTS GPPVTTATGSLGPSSEMH
GLPATTATSSVESSSVARGTSVSSRKTSTTSTQDPITTRSPSQESSGMLLVPMIALVVVLALVALLL
WRQRQKRRTGALTLSGGGKRNGVVDWAGPARVPDEEATTTSGAGGNKGSEVLETEGSGQRPTL
TTFFSRRKSRQGSVLLEELKPGSGPNLKGEELVGSSEDAVETPTSDGPPQAKDEAAPQSL

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Leukosialin (B-cell differentiation antigen LP-3) (Leukocyte sialoglycoprotein) (Lymphocyte antigen 48) (Ly-48) (Sialophorin) (CD antigen CD43) [Cleaved into: CD43 cytoplasmic tail (CD43-ct) (CD43ct)] produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Predominant cell surface sialoprotein of leukocytes which regulates multiple T-cell functions, including T-cell activation, proliferation, differentiation, trafficking and migration. Positively regulates T-cell trafficking to lymph-nodes via its association with ERM proteins (EZR, RDX and MSN) (PubMed:11728336, PubMed:17638845, PubMed:21289089). Negatively regulates Th2 cell differentiation and predisposes the differentiation of T-cells towards a Th1 lineage commitment (PubMed:18490738). Promotes the expression of IFN-gamma by T-cells during T-cell receptor (TCR) activation of naive cells and induces the expression of IFN-gamma by CD4(+) T-cells and to a lesser extent by CD8(+) T-cells. Plays a role in preparing T-cells for cytokine sensing and differentiation into effector cells by inducing the expression of cytokine receptors IFNGR and IL4R, promoting IFNGR and IL4R signaling and by mediating the clustering of IFNGR with TCR (By similarity). Acts as a major E-selectin ligand responsible for Th17 cell rolling on activated vasculature and recruitment during inflammation. Mediates Th17 cells, but not Th1 cells, adhesion to E-selectin (PubMed:26700769). Acts as a T-cell counter-receptor for SIGLEC1 (PubMed:11238599).; [CD43 cytoplasmic tail]: Protects cells from apoptotic signals, promoting cell survival.

Subcellular Localization: Membrane ; Single-pass type I membrane protein . Cell projection, microvillus . Cell projection, uropodium . Note=Localizes to the uropodium and microvilli via its interaction with ERM proteins (EZR, RDX and MSN).; [CD43 cytoplasmic tail]: Nucleus . Nucleus, PML body . Note=The sumoylated form localizes to the PML body.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.