

Recombinant Mouse CD6 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51631

Size: 10ug, 100ug

Protein Name: T-cell differentiation antigen CD6 (CD antigen CD6)

Synonym: Cd6

UniProt ID: Q61003

UniProt Link: www.uniprot.org/uniprotkb/Q61003/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 665 AA

Molecular Weight: 72 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MWLFLGIAGLLTAVLSGLPSPAPSGQHKNGTIPNMTLDLEERLGIRLVNGSSRCSGSKVLLSWEP
VCAAHWNRAATEAVCKALNCGDSGKVTYLMPPTSELPPGATSGNTSSAGNTTWARAPTERCRGAN
WQFCKVQDQECSSDRRLVWVTCAENQAVRLVDGSSRCAGRVEMLHGEWGTVCDDTWDLQDAH
VVCKQLKCGWAVKALAGLHFTPGQGPIHRDQVNCSGTEAYLWDCPGRPGDQYCGHKEDAGVVCS
EHQSWRLTGIDSCGQVEVYFRGVWSTVCDSEWYPSEAKVLCRSLGCGSAVARPRGLPHSLDG
RMYYSCKGQEPALSTCSWRFNNSNLCSQSRAARVVCSSGSRHLNLSTSEVPSRVPVTIESSVPVSV
KDKDSQGLTLLILCIVLGILLVSTIFIVILLRAKGQYALPASVNHQQLSTANQAGINNYHPVPIIAKEA
PMLFIQPRVPADSDSSSDSDYEHYDFSSQPPVALTTFYNSQRHRVTEEEAQQNRFMPPLEEGLEE
LHVSHIPAADPRPCVADVPSRGSQYHVRNNSDSSTSSEEGYCNPDSSKPPPWNQAFYSEKSPLT
EQPPNLELAGSPAVFSGPSADDSSSTSSGEWYQNFQPPPQHPPAEQFECGPPGPQTDSIDDEE
DYDDIGAA

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 T-cell differentiation antigen CD6 (CD antigen CD6) 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: Cell adhesion molecule that mediates cell-cell contacts and regulates T-cell responses via its interaction with ALCAM/CD166. Contributes to signaling cascades triggered by activation of the TCR/CD3 complex (PubMed:24584089). Functions as a costimulatory molecule; promotes T-cell activation and proliferation. Contributes to the formation and maturation of the immunological synapse. Functions as a calcium-dependent pattern receptor that binds and aggregates both Gram-positive and Gram-negative bacteria. Binds both lipopolysaccharide (LPS) from Gram-negative bacteria and lipoteichoic acid from Gram-positive bacteria. LPS binding leads to the activation of signaling cascades and down-stream MAP kinases. Mediates activation of the inflammatory response and the secretion of pro-inflammatory cytokines in response to LPS.

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein . Note=Detected at the immunological synapse, i.e, at the contact zone between antigen-presenting dendritic cells and T-cells. Colocalizes with the TCR/CD3 complex at the immunological synapse.

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.