

CD5
Catalog # PVGS1849

Specification

CD5 - Product Information

Primary Accession [P13379](#)
Species
Mouse

Sequence
Ser25-Pro371

Purity
> 95% as determined by Bis-Tris PAGE
> 95% as determined by HPLC

Endotoxin Level
Less than 1EU per µg by the LAL method.

Expression System
HEK293

Theoretical Molecular Weight
38.9 kDa

Formulation **Lyophilized from a 0.22 µm filtered solution in PBS (pH 7.4).**

Reconstitution
Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.

Storage & Stability
Upon receiving, the product remains stable up to 6 months at -20 °C or below. Upon reconstitution, the product should be stable for 3 months at -80 °C. Avoid repeated freeze-thaw cycles.

CD5 - Additional Information

Gene ID 12507

Other Names
T-cell surface glycoprotein CD5, Lymphocyte antigen 1, Ly-1, Lyl-1, CD5, Cd5, Ly-1

Target Background
CD5: a type I transmembrane protein found on T cells, thymocytes, and some B cells that is a ligand for CD72 and is involved in cellular activation or adhesion; expressed in B-cell chronic lymphocytic leukemia and T-cell lymphoma.

CD5 - Protein Information

Name Cd5

Synonyms Ly-1

Function

Lymphoid-specific receptor expressed by all T-cells and in a subset of B-cells known as B1a cells. Plays a role in the regulation of TCR and BCR signaling, thymocyte selection, T-cell effector differentiation and immune tolerance (PubMed:35720357). Acts by interacting with several ligands expressed on B-cells such as CD5L or CD72 and thereby plays an important role in contact-mediated, T- dependent B-cell activation and in the maintenance of regulatory T and B-cell homeostasis (PubMed:24950378, PubMed:9064341, PubMed:9723705). Functions as a negative regulator of TCR signaling during thymocyte development by associating with several signaling proteins including LCK, CD3Z chain, PI3K or CBL (PubMed:11157848). Mechanistically, co- engagement of CD3 with CD5 enhances phosphorylated CBL recruitment leading to increased VAV1 phosphorylation and degradation (By similarity). Modulates B-cell biology through ERK1/2 activation in a Ca(2+)-dependent pathway via the non-selective Ca(2+) channel TRPC1, leading to IL-10 production (By similarity).

Cellular Location

Cell membrane; Single-pass type I membrane protein

CD5 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD5 - Images