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CD5

Catalog # PVGS1877

Specification

CD5 - Product Information

Primary Accession P06127

Species
Human

Sequence
sArg25-Asn371

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

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

Biological Activity
Measured by its binding ability in a functional ELISA. Immobilized Anti-CD5 Antibody, hFc Tag at 1 μg/ml (100 μl/well) on the plate can bind CD5 hFc Chimera [Biotin], Avi, Human. Test result was comparable to standard batch.

Expression System
HEK293

Theoretical Molecular Weight
67.1 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 921

Other Names
T-cell surface glycoprotein CD5, Lymphocyte antigen T1/Leu-1, CD5, CD5, LEU1

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 LEU1

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. 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. 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:1384049, PubMed:1385158). Mechanistically, co- engagement of CD3 with CD5 enhances phosphorylated CBL recruitment leading to increased VAV1 phosphorylation and degradation (PubMed:23376399). 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 (PubMed:27499044).

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:P13379}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P13379}

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 Cytomety
- Cell Culture

CD5 - Images