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CD5

Catalog # PVGS1849

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.

Additional Information

Gene ID	12507
Other Names	T-cell surface glycoprotein CD5, Lymphocyte antigen 1, Ly-1, Lyt-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.

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