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CD5

Catalog # PVGS1877

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 □g by the LAL method.
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Anti-CD5 Antibody, hFc Tag at 1 □g/ml (100 □l/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 **Reconstitution**	Lyophilized from a 0.22 □m filtered solution in PBS，(pH 7.4). Centrifuge the tube before opening. Reconstituting to a concentration more than 100 □g/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	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.

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}