

# CD5

Catalog # PVGS1894

## Product Information

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<b>Primary Accession Species</b>	<a href="#">P06127</a> Human
<b>Sequence</b>	Arg25-Asn371
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC
<b>Endotoxin Level</b>	Less than 1EU per $\mu$ g by the LAL method.
<b>Biological Activity</b>	Measured by its binding ability in a functional ELISA. Immobilized CD5 hFc Chimera, Avi, Human at 1 $\mu$ g/ml (100 $\mu$ l/well) on the plate can bind Biotinylated Anti-CD5 Antibody, hFc Tag. Test result was comparable to standard batch.
<b>Expression System</b>	HEK293
<b>Theoretical Molecular Weight</b>	67.1 kDa
<b>Formulation Reconstitution</b>	Lyophilized from a 0.22 $\mu$ m filtered solution in PBS , (pH 7.4). Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu$ g/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage &amp; Stability</b>	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

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<b>Gene ID</b>	921
<b>Other Names</b>	T-cell surface glycoprotein CD5, Lymphocyte antigen T1/Leu-1, CD5, CD5, LEU1
<b>Target Background</b>	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

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<b>Name</b>	CD5
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<b>Synonyms</b>	LEU1
<b>Function</b>	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: <a href="#">1384049</a> , PubMed: <a href="#">1385158</a> ). Mechanistically, co- engagement of CD3 with CD5 enhances phosphorylated CBL recruitment leading to increased VAV1 phosphorylation and degradation (PubMed: <a href="#">23376399</a> ). 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: <a href="#">27499044</a> ).
<b>Cellular Location</b>	Cell membrane {ECO:0000250 UniProtKB:P13379}; Single-pass type I membrane protein {ECO:0000250 UniProtKB:P13379}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.