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# CD5

Catalog # PVGS1894

## Product Information

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| **Primary Accession** | P06127 |
| **Species** | Human |
| **Sequence** | Arg25-Asn371 |
| **Purity** | > 95% as determined by Bis-Tris PAGE<br>> 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 CD5 hFc Chimera, Avi, Human at 1 □g/ml (100 □l/well) on the plate can bind Biotinylated Anti-CD5 Antibody, hFc Tag. Test result was comparable to standard batch. |
| **Expression System** | HEK293 |
| **Theoretical Molecular Weight** | 67.1 kDa |
| **Formulation**<br>**Reconstitution** | Lyophilized from a 0.22 □m filtered solution in PBS，(pH 7.4).<br>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

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| **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

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| **Name** | CD5 |

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| **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} |

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