

CD19
Catalog # PVGS1539**Specification**

CD19 - Product Information

Primary Accession [P15391](#)
Species
Human

Sequence
Pro20-Lys291

Purity
> 95% as analyzed by SDS-PAGE

Endotoxin Level
< 0.2 EU/ µg of protein by gel clotting method

Expression System
CHO

Formulation **Lyophilized from a 0.2 µm filtered solution in PBS.**

Reconstitution
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH₂O or PBS up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

CD19 - Additional Information

Gene ID 930

Other Names
B-lymphocyte antigen CD19, B-lymphocyte surface antigen B4, Differentiation antigen CD19, T-cell surface antigen Leu-12, CD19, CD19

Target Background
CD19 is a 95 kDa coreceptor, which amplifies the signaling cascade in B cells. On the B cell surface, CD19 associates with CD21, CD81 and Leu-13 to exert its function. The cytoplasmic tail of CD19 has nine conserved tyrosine residues playing critical roles in CD19 mediated function by coupling signaling molecules to the receptor. Mature human CD19 consists of a 272aa extracellular domain (ECD) with two Ig-like domains, a 22aa transmembrane segment, and a 243aa cytoplasmic domain.

CD19 - Protein Information

Name CD19

Function

Functions as a coreceptor for the B-cell antigen receptor complex (BCR) on B-lymphocytes (PubMed:29523808). Decreases the threshold for activation of downstream signaling pathways and for triggering B-cell responses to antigens (PubMed:1373518, PubMed:16672701, PubMed:2463100). Activates signaling pathways that lead to the activation of phosphatidylinositol 3-kinase and the mobilization of intracellular Ca(2+) stores (PubMed:12387743, PubMed:16672701, PubMed:9317126, PubMed:9382888). Is not required for early steps during B cell differentiation in the blood marrow (PubMed:9317126). Required for normal differentiation of B-1 cells (By similarity). Required for normal B cell differentiation and proliferation in response to antigen challenges (PubMed:1373518, PubMed:2463100). Required for normal levels of serum immunoglobulins, and for production of high-affinity antibodies in response to antigen challenge (PubMed:12387743, PubMed:16672701, PubMed:9317126).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Membrane raft
{ECO:0000250|UniProtKB:P25918}; Single-pass type I membrane protein
{ECO:0000250|UniProtKB:P25918}

Tissue Location

Detected on marginal zone and germinal center B cells in lymph nodes (PubMed:2463100).
Detected on blood B cells (at protein level) (PubMed:16672701, PubMed:2463100)

CD19 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD19 - Images