

Product datasheet for SM3027P

OriGene Technologies, Inc.

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CD5 Mouse Monoclonal Antibody [Clone ID: MEM-32]

Product data:

Product Type: Primary Antibodies

Clone Name: MEM-32

Applications: ELISA, FC, IF, IHC, IP, WB Recommended Dilution: **Immunoprecipitation.**

Western blot (non reducing conditions): Laurylmaltoside lysing buffer, 1-2 µg/ml.

Immunocytochemistry. Flow cytometry: 2 µg/ml.

Immunohistochemistry (paraffin sections): 20 µg/ml.

Positive tissue: spleen.

ELISA: Can be used in the Sandwich ELISA as the capture antibody in pair with the detection

antibody clone CRIS1.

Reactivity: Human
Host: Mouse
Isotype: IgG1

Clonality: Monoclonal

Immunogen: Crude thymus membrane fraction

Specificity: The antibody MEM-32 reacts with the cell surface glycoprotein CD5, a 67kDa single-chain

transmembrane glycoprotein expressed on mature T-lymphocytes, most of thymocytes and

B-lymphocytes subset (B-1a lymphocytes).

Formulation: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

State: Purified

State: Liquid Ig fraction

Concentration: lot specific

Purification: Protein A affinity chromatography; purity: > 95% (by SDS-PAGE)

Conjugation: Unconjugated

Storage: Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer. Avoid

repeated freezing and thawing.

Stability: Shelf life: one year from despatch.





Gene Name: CD5 molecule

Database Link: Entrez Gene 921 Human

P06127

Background: CD5 antigen (T1; 67 kDa) is a human cell surface T-lymphocyte single-chain transmembrane

glycoprotein. CD5 is expressed on all mature T-lymphocytes, most of thymocytes, subset of B-lymphocytes and on many T-cell leukemias and lymphomas. It is a type I membrane glycoprotein whose extracellular region contains three scavenger receptor cysteine-rich

(SRCR) domains.

The CD5 is a signal transducing molecule whose cytoplasmic tail is devoid of any intrinsic catalytic activity. CD5 modulates signaling through the antigen-specific receptor complex (TCR and BCR). CD5 crosslinking induces extracellular Ca++ mobilization, tyrosine phosphorylation

of intracellular proteins and DAG production. Preliminary evidence shows protein associations with ZAP-70, p56lck, p59fyn, PC-PLC, etc. CD5 may serve as a dual receptor, giving either stimulatory or inhibitory signals depending both on the cell type and development stage. In thymocytes and B1a cells seems to provide inhibitory signals, in peripheral mature T lymhocytes it acts as a costimulatory signal receptor. CD5 is the phenotypic marker of a B cell subpopulation involved in the production of autoreactive

antibodies.

Disease relevance: CD5 is a phenotypic marker for some B cell lymphoproliferative disorders (B-CLL, Hairy cell leukemia, etc.). The CD5+ population is expanded in some autoimmune disorders (Rheumatoid Arthritis, etc.). Herpes virus infections induce loss of

CD5 expression in the expanded CD8+ human T cells.

Synonyms: CD5, LEU1