Revision 4

#78813 Store at +4C

CD19 (SJ25C1) Mouse mAb (PE-Cy7® Conjugate)

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-L	H	Endogenous	Mouse IgG1	#P15391	930

Product Usage Information

Application	Dilution
Flow Cytometry (Live)	1:20

Storage

Supplied in 10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, 0.1% gelatin, pH7.2. This product is stable for 6 months when stored at 4ºC. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity / Sensitivity

CD19 (SJ25C1) Mouse mAb (PE-Cy7® Conjugate) recognizes endogenous levels of total CD19 protein. This antibody detects an epitope within the extracellular domain.

Source / Purification

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.

Product Description

This Cell Signaling Technology antibody is conjugated to PE-Cy7® and tested in-house for direct flow cytometry analysis in human cells.

Background

CD19 is a 95 kDa coreceptor which amplifies the signaling cascade in B cells (1). 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 (1). After B cell receptor or CD19 ligation, Tyr531 and Tyr500 of CD19 are progressively phosphorylated. This phosphorylation enables the coupling of PI3 kinase and Src family tyrosine kinase to CD19 and activates the PI3K and Src signaling pathways (2,3). Coligation of B cell receptor and CD19 also promotes Tyr409 phosphorylation in CD19. The phosphorylation at these sites enables its binding to Vav and mediates elevated intracellular calcium response, as well as the JNK pathway (4,5).
The SJ25C1 antibody is widely used to identify cells of the B-lymphocyte lineage (6).

Background References

1. Tedder, T.F. et al. (1997) *Immunity* 6, 107-18.
2. Buhl, A.M. and Cambier, J.C. (1999) *J Immunol* 162, 4438-46.
3. Fujimoto, M. et al. (2000) *Immunity* 13, 47-57.
4. O'Rourke, L.M. et al. (1998) *Immunity* 8, 635-45.
5. Sato, S. et al. (1997) *Proc Natl Acad Sci U S A* 94, 13158-62.
6. Bejcek, B.E. et al. (1995) *Cancer Res* 55, 2346-51.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

FC-L: Flow Cytometry (Live)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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