

#3571 Store at -20°C

# Phospho-CD19 (Tyr531) Antibody



✓ 100 µl  
(10 western blots)

**Orders** ■ 877-616-CELL (2355)  
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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #930  
Swiss-Prot Acc. #P15391

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H	95 kDa	Rabbit**

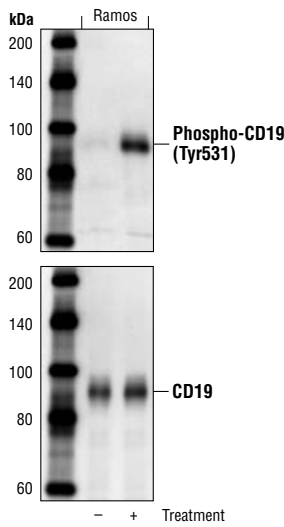
**Background:** CD19 is a 95 kDa coreceptor, which amplifies the signaling cascade in B cells (1). On the B cell surface, CD19 associates with CD21, CD81 and Leu-13 to exert its function. The cytoplasmic tail of CD19 has nine conserved tyrosine residues playing critical roles in CD19 mediated function 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). Colligation 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).

**Specificity/Sensitivity:** Phospho-CD19 (Tyr531) Antibody detects endogenous levels of CD19 only when phosphorylated at tyrosine 531.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Tyr531 of human CD19. Antibodies are purified by protein A and peptide affinity chromatography.

### 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 USA* 94, 13158–62.



Western blot analysis of SDS extracts from untreated or anti-human IgM treated (12 µg/ml for 2 minutes) Ramos cells using Phospho-CD19 (Tyr531) Antibody (upper) and control CD19 Antibody #3574 (lower).

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

### Recommended Antibody Dilutions:

Western Blotting 1:1000  
Immunoprecipitation 1:100

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.