Revision 3

#14732 Store at -20C

Phospho-CD79A (Tyr182) (D1B9) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-IC, FC-FP	H	Endogenous	Rabbit IgG	#P11912	973

Product Usage Information

Application	Dilution
Immunofluorescence (Immunocytochemistry)	1:50
Flow Cytometry (Fixed/Permeabilized)	1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #17749.

Specificity / Sensitivity

Phospho-CD79A (Tyr182) Rabbit mAb recognizes endogenous levels of human CD79A protein only when phosphorylated on Tyr188. This corresponds to Tyr182 of mouse CD79A protein.

Species predicted to react based on 100% sequence homology:

Mouse

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr188 of human CD79A protein. The phosphopeptide sequence is identical to the region surrounding Tyr182 of mouse CD79A protein.

Background

Antigen receptors found on the surface of B cells contain a heterodimeric signaling component composed of CD79A and CD79B, also known as Ig α and Ig β, respectively (1,2). Presence of this receptor complex is essential for B cell development and function (3). Together these two proteins and the associated B cell receptor (BCR) initiate intracellular signaling following antigen binding (4,5). An immunoreceptor tyrosine-based activation motif (ITAM) found in the CD79A intracellular region appears to be important for its function (6). Antigen binding precedes formation of the CD79A and CD79B heterodimer and subsequent activation of receptor associated kinases (7). Research has shown that CD79A is a marker for B-lineage lymphoblastic leukemia (8). Additionally, investigators have found that mutations in the *CD79A* (*MB1*) gene are associated with abnormally low levels of functional B cell receptors in some cases of chronic B cell lymphocytic leukemia (9).

Background References

1. van Noesel, C.J. et al. (1991) *J Immunol* 146, 3881-8.
2. Minegishi, Y. et al. (1999) *J Clin Invest* 104, 1115-21.
3. Yu, L.M. and Chang, T.W. (1992) *J Immunol* 148, 633-7.
4. Storch, B. et al. (2007) *Eur J Immunol* 37, 252-60.
5. Mason, D.Y. et al. (1995) *Blood* 86, 1453-9.
6. Luisiri, P. et al. (1996) *J Biol Chem* 271, 5158-63.
7. Pike, K.A. et al. (2004) *J Immunol* 172, 2210-8.
8. Astsaturov, I.A. et al. (1996) *Leukemia* 10, 769-73.
9. Vuillier, F. et al. (2005) *Blood* 105, 2933-40.

Species Reactivity

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

Applications Key

IF-IC: Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

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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