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## Phospho-CD79A (Tyr182) (D1B9) Rabbit mAb (Alexa Fluor® 647 Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

|                               |                         |                                   |                                      |                               |                               |
|-------------------------------|-------------------------|-----------------------------------|--------------------------------------|-------------------------------|-------------------------------|
| <b>Applications:</b><br>FC-FP | <b>Reactivity:</b><br>H | <b>Sensitivity:</b><br>Endogenous | <b>Source/Isotype:</b><br>Rabbit IgG | <b>UniProt ID:</b><br>#P11912 | <b>Entrez-Gene Id:</b><br>973 |
|-------------------------------|-------------------------|-----------------------------------|--------------------------------------|-------------------------------|-------------------------------|

|   |   |                         |
|---|---|-------------------------|
| <b>Product Usage Information</b>                                  | <b>Application</b><br>Flow Cytometry (Fixed/Permeabilized)  | <b>Dilution</b><br>1:50 |
| <b>Storage</b>  | Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. <i>Do not aliquot the antibody. Protect from light. Do not freeze.</i>   |                         |
| <b>Specificity/Sensitivity</b>                                    | Phospho-CD79A (Tyr182) (D1B9) Rabbit mAb (Alexa Fluor® 647 Conjugate) recognizes endogenous levels of human CD79A protein only when phosphorylated on Tyr188. This corresponds to Tyr182 of mouse CD79A protein.  |                         |
| <b>Species predicted to react based on 100% sequence homology</b> | Mouse   |                         |
| <b>Source / Purification</b>                                      | 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.  |                         |
| <b>Description</b>  | This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 647 fluorescent dye and tested in-house for direct immunofluorescent and flow cytometric analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-CD79A (Tyr182) (D1B9) Rabbit mAb #14732.   |                         |
| <b>Background</b>   | Antigen receptors found on the surface of B cells contain a heterodimeric signaling component composed of CD79A and CD79B, also known as Ig $\alpha$ and Ig $\beta$ , 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 <i>CD79A (MB1)</i> gene are associated with abnormally low levels of functional B cell receptors in some cases of chronic B cell lymphocytic leukemia (9). |                         |
| <b>Background References</b>                                      | <ol style="list-style-type: none"> <li>van Noesel, C.J. et al. (1991) <i>J Immunol</i> 146, 3881-8.</li> <li>Minegishi, Y. et al. (1999) <i>J Clin Invest</i> 104, 1115-21.</li> <li>Yu, L.M. and Chang, T.W. (1992) <i>J Immunol</i> 148, 633-7.</li> <li>Storch, B. et al. (2007) <i>Eur J Immunol</i> 37, 252-60.</li> <li>Mason, D.Y. et al. (1995) <i>Blood</i> 86, 1453-9.</li> <li>Luisiri, P. et al. (1996) <i>J Biol Chem</i> 271, 5158-63.</li> <li>Pike, K.A. et al. (2004) <i>J Immunol</i> 172, 2210-8.</li> <li>Astsaturov, I.A. et al. (1996) <i>Leukemia</i> 10, 769-73.</li> <li>Vuillier, F. et al. (2005) <i>Blood</i> 105, 2933-40.</li> </ol>  |                         |
| <b>Species Reactivity</b>   | Species reactivity is determined by testing in at least one approved application (e.g., western blot).  |                         |
| <b>Applications Key</b>   | <b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)  |                         |
| <b>Cross-Reactivity Key</b>                                       | <b>H:</b> Human   |                         |
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