

#5173 Store at -20C

Phospho-CD79A (Tyr182) Antibody



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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC, FC-FP	H	Endogenous	45-55	Rabbit	#P11912	973

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:50
1:200
1:100

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.

Specificity / Sensitivity

Phospho-CD79A (Tyr182) Antibody detects endogenous levels of CD79A protein only when phosphorylated on Tyr188 of CD79A. This corresponds to Tyr182 on mouse CD79A protein.

Species predicted to react based on 100% sequence homology:

Mouse, Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr188 of human CD79A protein. This sequence corresponds to Tyr182 of mouse CD79A protein. Antibodies are purified by protein A and peptide affinity chromatography.

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).
Tyr182 of mouse CD79A (corresponding to Tyr188 of human CD79A) is one of two key tyrosine residues in the immunoreceptor tyrosine-based activation motif (ITAM) of CD79A. Tyrosines in the ITAM motifs are phosphorylated by Src family kinases (e.g., Lyn, Blk), and play a critical role in modulating signal transduction following immune receptor activation (10).

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.
10. Pao, L.I. et al. (1998) *J Immunol* 160, 3305-14.

Species Reactivity

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

Western Blot Buffer

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

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation **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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