

Product name:	CD79a Rabbit Polyclonal Antibody
Cat number:	ABN08455
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human CD79a. AA range:154-203
Reactivity:	Human,Mouse
Applications:	WB 1:500-1:2000,ELISA 1:5000-1:20000
Molecular Weight:	33kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

The B lymphocyte antigen receptor is a multimeric complex that includes the antigen-specific component, surface immunoglobulin (Ig). Surface Ig non-covalently associates with two other proteins, Ig-alpha and Ig-beta, which are necessary for expression and function of the B-cell antigen receptor. This gene encodes the Ig-alpha protein of the B-cell antigen component. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008],disease:Defects in CD79A are a cause of non-Bruton type agammaglobulinemia [MIM:601495]. Agammaglobulinemia is an immunodeficiency disease which results in developmental defects in the maturation pathway of B-cells. Two different mutations, one at the splice donor site of intron 2 and the other at the splice acceptor site for exon 3, have been identified. Both mutations give rise to a truncated protein.,function:Required in cooperation with CD79B for initiation of the signal transduction cascade activated by binding of antigen to the B-cell antigen receptor complex (BCR) which leads to internalization of the complex, trafficking to late endosomes and antigen presentation. Also required for BCR surface expression and for efficient differentiation of pro- and pre-B-cells. Stimulates SYK autophosphorylation and activation. Binds to BLNK, bringing BLNK into proximity with SYK and allowing SYK to phosphorylate BLNK. Also interacts with and increases activity of some Src-family tyrosine kinases. Represses BCR signaling during development of immature B cells.,online information:CD79A mutation db,PTM:Phosphorylated on tyrosine, serine and threonine residues upon B-cell activation. Phosphorylation of tyrosine residues by Src-family kinases is an early and essential feature of the BCR signaling cascade. The phosphorylated tyrosines serve as docking sites for SH2-domain containing kinases, leading to their activation which in turn leads to phosphorylation of downstream targets. Phosphorylation of serine and threonine residues may prevent subsequent tyrosine phosphorylation.,similarity:Contains 1 Ig-like C2-type (immunoglobulin-like) domain.,similarity:Contains 1 ITAM domain.,subcellular location:Following antigen binding, the BCR has been shown to translocate from detergent-soluble regions of the cell membrane to lipid rafts.,subunit:Heterodimer of alpha and beta chains; disulfide-linked. Part of the B-cell antigen receptor complex where the alpha/beta chain heterodimer is non-covalently associated with an antigen-specific membrane-bound surface immunoglobulin of two heavy chains and two light chains. Interacts through its phosphorylated ITAM domain with the SH2 domains of SYK which stimulates SYK autophosphorylation and activation. Also interacts, when phosphorylated on Tyr-210, with the SH2 domain of BLNK/SLP65, bringing BLNK into proximity with SYK and allowing SYK to phosphorylate BLNK which is necessary for trafficking of the BCR to late endosomes. Interacts with Src-family tyrosine kinases including FYN and LYN, increasing their activity.,tissue specificity:B-cells.,