

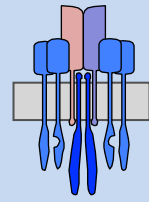
# anti-p- $\zeta$

rabbit polyclonal serum

It recognizes tyrosine-phosphorylated CD3 $\zeta$ .

#PA012 100  $\mu$ l

This product is for in vitro research use only and is not intended for use in animals or humans.



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applications	species cross reactivity.	source	isotype	MW of the antigen
WB, IP	mouse, human	rabbit	polyclonal	20-22 kDa

**storage :** supplied in 50% glycerol and less than 0.02% sodium azide; store at -20°C.

### recommended use:

Western Blotting 1:1000  
Immunoprecipitation 5  $\mu$ l

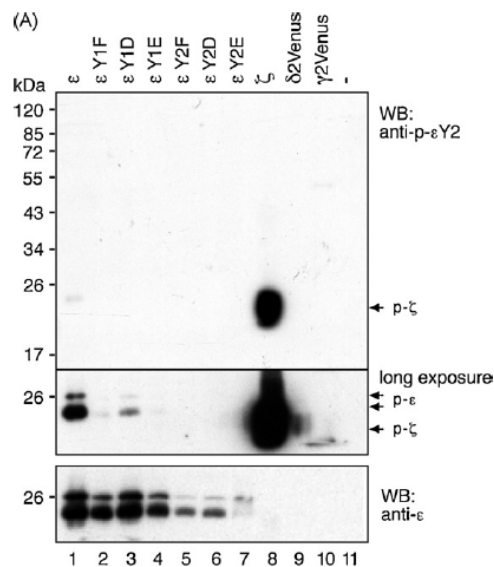
### Background:

The T cell antigen receptor (TCR) plays a crucial role in adaptive immune responses by activating T cells upon encountering a pathogenic peptide presented by MHC molecules.

The TCR consists of the TCR $\alpha\beta$ , CD3 $\epsilon\gamma$ , CD3 $\epsilon\delta$  and CD3 $\zeta\zeta$  dimers. TCR $\alpha\beta$  (or TCR $\gamma\delta$ ) bind to the antigen, whereas CD3 transmits the signal into the cell.

CD3 $\zeta$  (or simply called  $\zeta$ ) plays a central role, since it contains six tyrosines organised in 3 ITAM motifs. These CD3 $\zeta$  tyrosines are phosphorylated upon pathogen recognition by the TCR and bind to the kinase ZAP-70.

We have generated a specific antiserum that only recognizes tyrosine-phosphorylated CD3 $\zeta$ , and not unphosphorylated CD3 $\zeta$ . It very weakly also recognizes the second ITAM tyrosine of CD3 $\epsilon$ , and thus was called anti-p- $\epsilon$ Y2 in the original publication (Dopfer et al. 2010). Now we have renamed the antiserum to anti-p- $\zeta$  (anti-phospho- $\zeta$ ) to take its main reactivity into account.



**Figure:** Anti-p- $\zeta$  (also called anti-p- $\epsilon$ Y2) recognizes phospho- $\zeta$ . *Drosophila* S2 cells were transfected with plasmids encoding for the proteins indicated as well as kinases, in order to phosphorylate the CD3 chains. WB was done using the total cell lysates.

### Publications:

Dopfer et al. Immunol. Lett 2010, 130: 43-50

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