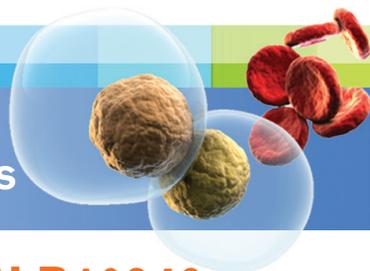




SINGLE-COLOR ANTIBODIES



NEW PRODUCT

Anti-ZAP-70-PE

PN B10248

Antibody

Specificity: Human
Clone: SBZAP
Isotype: IgG1 mouse

Reagent

Line: IOTest
Format: Liquid
Size: 1 mL
Status: ASR

Antibody characteristics

The monoclonal antibody SBZAP was generated against a KLH-peptide sequence corresponding to the human ZAP-70 amino acid residues 280-309.

Antigen characteristics

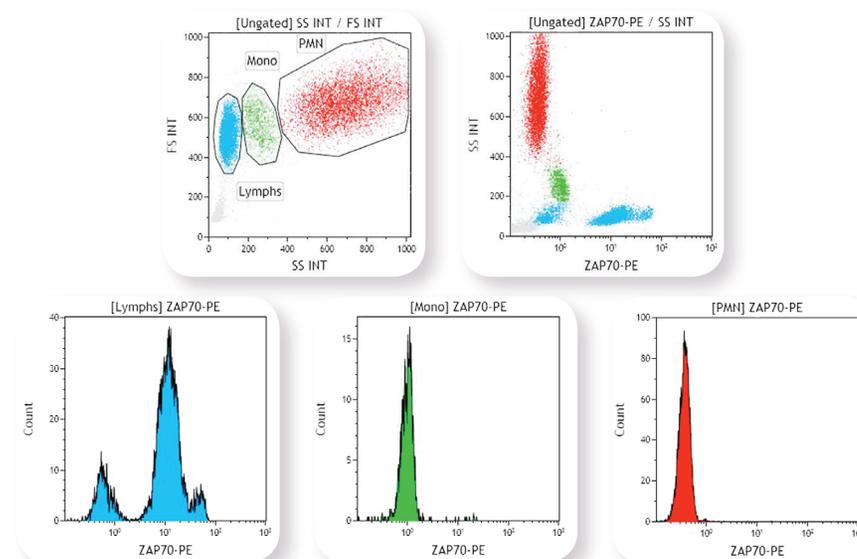
ZAP-70, a Syk family protein tyrosine kinase expressed in T and NK cells, plays a critical role in mediating T cell activation in response to T cell receptor (TCR) engagement. Following TCR engagement, ZAP-70 is rapidly phosphorylated on several tyrosine residues, presumably by two mechanisms: autophosphorylation and transphosphorylation by the Src family tyrosine kinase, Lck. Tyrosine phosphorylation of ZAP-70 correlates with its increased kinase activity and downstream signalling events.

Formats available

	Size	Line	Status	Part #
PE	1 mL	IOTest	ASR	B10248

ASR: Analyte Specific Reagent. Analytical and performance characteristics are not established.

Example of results



Permeabilized whole blood sample

References

- Iwashima M, Irving B.A., van Oers N.S., Chan A.C. and Weiss A. 1994. "Sequential interactions of the TCR with two distinct cytoplasmic tyrosine kinases." *Science*, 263, 1136-1139.
- Neumeister E.N., Zhu Y., Richard S., Tersthorst C. Chan A.C. and Shaw A.S. 1995. "Binding of ZAP-70 to phosphorylated T-cell receptor zeta and eta enhances its autophosphorylation and generates specific binding sites for SH2 domain-containing proteins." *Mol. Cell. Biol.*, 15, 3171-3178.
- Chan A.C., Dalton M., Johnson R., Kong G.H., Wang T., Thoma R. and Kurosaki T., 1995. "Activation of ZAP-70 kinase activity by phosphorylation of tyrosine 493 is required for lymphocyte antigen receptor function." *EMBO J.*, 14, 2499-2508.
- Wange R.L., Isakov N., Burke T.R., Otaka A., Roller P.P., Watts J.D., Aebersold R. and Samelson L.E. 1995. "F2(Pmp)2-TAM zeta 3, a novel competitive inhibitor of the binding of ZAP-70 to the T cell antigen receptor, blocks early T cell signaling." *J. Biol. Chem.* 270, 944.
- Van Oers, N.S., and A. Weiss. 1995. "The Syk/ZAP-70 protein tyrosine kinase connection to antigen receptor signalling processes." *Semin. Immunol.* 7 (4), 227-236.
- CHU D.H., Morita C.T. and Weiss A. 1998. "The Syk family of protein tyrosine kinases in T-cell activation and development." *Immunol. Rev.* 165, 167-180.
- William B.L., Irvin B.J., Sutor S.L., Chini C.C., Yacyshyn E., Bubeck W.J., Dalton M., Chan A.C. and Abraham R.T. 1999. "Phosphorylation of Tyr319 in ZAP-70 is required for T-cell antigen receptor-dependent phospholipase C-gamma1 and Ras activation." *EMBO J.* 18, 1832-1844.
- Di Bartolo V., Mége D. Germain V., Pelosi M., Dufour E., Michel F., Magistrelli G., Isacchi A. and Acuto O. 1999. "Tyrosine 319, a newly identified phosphorylation site of ZAP-70, plays a critical role in T cell antigen receptor signaling." *J. Biol. Chem.* 274, 6285-6294.