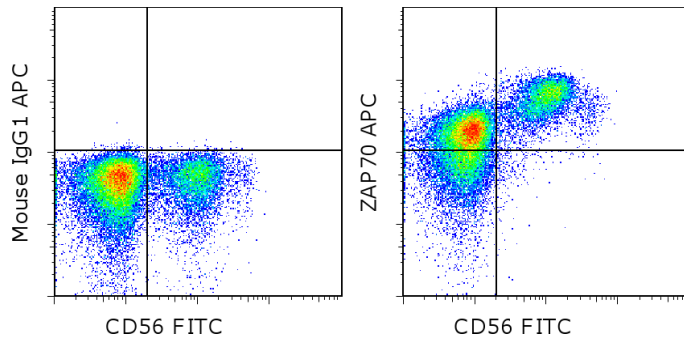


Anti-Human/Mouse ZAP-70 APC

Catalog Number: 17-6695

Also known as: ZAP70

RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of normal human peripheral blood cells with Anti-Human CD56 (NCAM) FITC followed by intracellular with Mouse IgG1 kappa Isotype Control APC (cat. 17-4714) (left) or Anti-Human/Mouse ZAP-70 APC (right), using Foxp3 Staining Buffers (cat. 00-5523). Cells in the lymphocyte gate were used for analysis.

Product Information



Contents: Anti-Human/Mouse ZAP-70 APC

Catalog Number: 17-6695

Clone: 1E7.2

Concentration: 5 μ L (0.5 μ g)/test

Host/Isotype: Mouse IgG1, kappa



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.



Batch Code: Refer to vial



Use By: Refer to vial

Description

The 1E7.2 antibody reacts with human and mouse ZAP-70, the TCR ζ -associated protein-70. ZAP-70 is a cytosolic protein tyrosine kinase (PTK) and a member of the Syk family of proteins. It is expressed in T and NK cells and is required for TCR signaling and development. ZAP-70 interacts with the TCR complex by binding to tyrosine-phosphorylated immunoreceptor tyrosine-based activation motifs (ITAMs) present in the invariant subunits of the TCR complex. Following activation, ZAP-70 is phosphorylated on several tyrosine residues by two mechanisms; an autophosphorylation and a transphosphorylation by the Src family tyrosine kinase Lck1-3. Tyrosine phosphorylation of ZAP-70 correlates to its increased kinase activity and triggers downstream signaling events. Mutations in ZAP-70 have been shown to result in a form of Severe Combined Immunodeficiency Syndrome (SCID) in humans. 1E7.2 was generated against a KLH-peptide sequence corresponding to the human ZAP-70 amino acid residues 282-307. While ZAP-70 is normally expressed in T and NK cells, several recent studies have also shown high correlation of ZAP-70 positive expression with mutated IgVH expression in B-chronic lymphocytic leukemia (CLL). In conclusion, the expression of ZAP-70, which can be measured by intracellular flow cytometry, may serve as a prognostic marker for B-CLL.

Applications Reported

This 1E7.2 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested

This 1E7.2 antibody has been pre-titrated and tested by intracellular staining and flow cytometric analysis of normal human peripheral blood cells using Foxp3 buffer (cat. 00-5523) and protocol. Please click here for Staining Protocol (refer to Protocol B: One-step protocol for intracellular (nuclear) proteins). This antibody can be used at 5 μ L (0.5 μ g) per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

References

Qian D, Lev S, van Oers NS, Dikic I, Schlessinger J, Weiss A. 1997. Tyrosine phosphorylation of Pyk2 is selectively regulated by Fyn during TCR signaling. *J Exp Med.* 185(7):1253-9.

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Qian D, Mollenauer MN, Weiss A. 1996. Dominant-negative zeta-associated protein 70 inhibits T cell antigen receptor signaling. *J Exp Med.* 183(2):611-20.

Orchard JA, Ibbotson RE, Davis Z, Wiestner A, Rosenwald A, Thomas PW, Hamblin TJ, Staudt LM, Oscier DG.

2004. ZAP-70 expression and prognosis in chronic lymphocytic leukaemia. *Lancet.* Jan 10;363(9403):105-11.

Chen L, Widhopf G, Huynh L, Rassenti L, Rai KR, Weiss A, Kipps TJ. 2002. Expression of ZAP-70 is associated with increased B-cell receptor signaling in chronic lymphocytic leukemia. *Blood.* Dec 15;100(13):4609-14.

Related Products

00-5523 Foxp3 / Transcription Factor Staining Buffer Set

17-4714 Mouse IgG1 K Isotype Control APC (P3.6.2.8.1)

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