SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

TECHNICALLY Speaking

Place your order with CEDARLANE® or your local distributor.

Please contact CEDARLANE® for lot specific information.

Purified Rabbit Anti-Human ZAP-70 Polyclonal Antibody

CLX228AP
Lot: R0010804

Size:	0.1 mg
Clone:	Polyclonal
Isotype:	Rabbit None
Specificity:	C-terminal part of human ZAP-70 protein tyrosine kinase. **ZAP70 is a molecule susceptible to degradation.** It is recommended to use freshly prepared cell lysates (protease inhibitors are essential) to avoid non-specific staining of degradation products.
Immunogen:	Bacterially expressed fusion protein representing C-terminal part (160 amino acids) of human ZAP-70 with histidine tag.
Species Reactivity:	Human
Application:	**Western Blotting** *Recommended dilution:* 1 mg/ml *Positive control:* JURKAT T cell leukemia cell line *Sample preparation:* Re-suspend approx. 50 mil. cells in 1 ml cold Lysis buffer (1% laurylmaltoside in 20 mM Tris/Cl, 100 mM NaCl pH 8.2, 50 mM NaF including Protease inhibitor Cocktail). Incubate 60 min on ice. Centrifuge to remove cell debris. Mix lysate with reducing Laemmli SDS-PAGE sample buffer. *Application note:* Reducing conditions.
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified from rabbit serum by protein-A affinity chromatography
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

For more information or to place an order please contact...

CEDARLANE® LABORATORIES LIMITED
5516 - 8th Line, R.R.#2, Hornby, Ontario, CANADA L0P 1E0

toll free: 1-800-268-5058 in North America
phone: (905) 878-8891 • fax: (905) 878-7800

or visit our website for a list of our international distributors including contact information
website: www.cedarlanelabs.com • e-mail: info@cedarlanelabs.com

Storage / Stability: Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

Background: The **ZAP-70** (zeta-associated protein of 70 kDa) tyrosine kinase was identified as a tyrosine phosphoprotein that associates with TCR zeta subunit and undergoes tyrosine phosphorylation following TCR stimulation. ZAP-70 is a Syk family tyrosine kinase primarily expressed in T and NK cells that plays an essential role in signaling through the TCR. TCR-mediated activation of T cells is crucial to the immune response. In humans, ZAP-70 gene mutations resulting in lower ZAP-70 protein expression levels or expression of catalytically inactive ZAP-70 proteins, have been identified. ZAP-70 deficiency results in the absence of mature CD8+ T cells and the prevention of TCR-mediated activation of CD4+ T cells, and it can lead to severe combined immunodeficiency. ZAP-70 is cytosolic protein migrating at 70 kDa in SDS-PAGE. It contains two N-terminal SH2 domains (Src homology domain 2) and a C-terminal kinase domain. Crystal structure of the ZAP-70 SH2 domains in complex with a TCR zeta subunit peptide was described. During T cell activation , the binding of ZAP-70 SH2 domains to the phosphorylated zeta subunit on the activated TCR complex causes a co-localization with the Lck tyrosine kinase that phosphorylates ZAP-70 on Tyr493 in the activation loop. ZAP-70 auto-phosphorylates multiple tyrosines in the region between the SH2 domains and the kinase domain, including the binding sites for additional SH2-containing signaling proteins such as SLP-76, LAT, Lck, PLCgamma1, Vav, Shc, Ras-GAP, and Abl. ZAP-70-mediated activation of these downstream effectors leads to the release of intracellular calcium stores, and the transcription of interleukin-2 and other genes important for an immune response.

References:

*Chan AC, Irving BA, Fraser JD, Weiss A: The zeta chain is associated with a tyrosine kinase and upon T-cell antigen receptor stimulation associates with ZAP-70, a 70-kDa tyrosine phosphoprotein. Proc Natl Acad Sci USA 88(20), 9166 (1991).

*Ishaq M, DeGray G, Natarajan V: Evidence for the involvement of tyrosine kinase ZAP 70 in nuclear retinoid receptor-dependent transactivation in T lymphocytes. J Biol Chem. 2005Oct 7;280(40):34152-8.

*Schneider H, Smith X, Liu H, Bismuth G, Rudd CE: CTLA-4 disrupts ZAP70 microcluster formation with reduced T cell/APC dwell times and calcium mobilization. Eur J Immunol. 2008 Jan;38(1):40-7.