

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ZAP70 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human ZAP70 Phe10-Cys102 Accession # P43403
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

ZAP70 (Zeta-associated protein 70 kDa; also Syk-related tyrosine kinase) is a 68-70 kDa member of the SYK subfamily, tyrosine kinase family of molecules. It is found in immature thymocytes, plus T cells and NK cells, and is essential for TCR-mediated IL-2 production, plus the development of CD8+ T cells. Human ZAP70 is 619 amino acids (aa) in length. It contains two SH2 domains (aa 10-102 and 162-254), a regulatory interdomain region (aa 255-337), and a C-terminal tyrosine kinase domain (aa 338-539). The two SH2 domains bind to phosphorylated tyrosines on the CD3 ζ-chain following TCR activation. This activates the ZAP70 kinase domain with the initiation of downstream signaling via SLP76 and LAT. There are four potential splice variants of ZAP70. One termed TZK is 37 kDa in size, and characterized by an alternative start site at Met308. This is expressed in very early thymocytes. Two others show an alternative start site 88 aa upstream of the standard site, with one of these variants also showing a deletion of aa 495-541. A fourth variant contains an eight aa substitution for aa 1-134. Over aa 10-102, human ZAP70 shares 98% aa identity with mouse ZAP70.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.