

ZAP70(Ab-292) Conjugated Antibody

Catalog No: #C21547



Package Size: #C21547-AF350 100ul #C21547-AF405 100ul #C21547-AF488 100ul
 #C21547-AF555 100ul #C21547-AF594 100ul #C21547-AF647 100ul
 #C21547-AF680 100ul #C21547-AF750 100ul #C21547-Biotin 100ul

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Description

Product Name	ZAP70(Ab-292) Conjugated Antibody
Host Species	Rabbit
Clonality	Polyclonal
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total ZAP70 protein.
Immunogen Description	Peptide sequence around aa.288-292 (N-S-D-G-Y) derived from Human ZAP70.
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	SRK ;STD;TZK;ZAP-70
Accession No.	Swiss-Prot#:P43403NCBI Gene ID:7535NCBI mRNA#:NM_001079.3 NCBI Protein#:NP_001070.2
Uniprot	P43403
GeneID	7535;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm AF750: 749nm/775nm
Calculated MW	70
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

Application Details

Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250
 AF405 conjugated: most applications: 1: 50 - 1: 250
 AF488 conjugated: most applications: 1: 50 - 1: 250
 AF555 conjugated: most applications: 1: 50 - 1: 250
 AF594 conjugated: most applications: 1: 50 - 1: 250
 AF647 conjugated: most applications: 1: 50 - 1: 250
 AF680 conjugated: most applications: 1: 50 - 1: 250
 AF750 conjugated: most applications: 1: 50 - 1: 250

Product Description

Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.

Background

Tyrosine kinase that plays an essential role in regulation of the adaptive immune response. Regulates motility, adhesion and cytokine expression of mature T-cells, as well as thymocyte development. Contributes also to the development and activation of primary B-lymphocytes. When antigen presenting cells (APC) activate T-cell receptor (TCR), a series of phosphorylations lead to the recruitment of ZAP70 to the doubly phosphorylated TCR component CD247/CD3Z through ITAM motif at the plasma membrane. This recruitment serves to localization to the stimulated TCR and to relieve its autoinhibited conformation. Release of ZAP70 active conformation is further stabilized by phosphorylation mediated by LCK. Subsequently, ZAP70 phosphorylates at least 2 essential adapter proteins: LAT and LCP2. In turn, a large number of signaling molecules are recruited and ultimately lead to lymphokine production, T-cell proliferation and differentiation. Furthermore, ZAP70 controls cytoskeleton modifications, adhesion and mobility of T-lymphocytes, thus ensuring correct delivery of effectors to the APC. ZAP70 is also required for TCR-CD247/CD3Z internalization and degradation through interaction with the E3 ubiquitin-protein ligase CBL and adapter proteins SLA and SLA2. Thus, ZAP70 regulates both T-cell activation switch on and switch off by modulating TCR expression at the T-cell surface. During thymocyte development, ZAP70 promotes survival and cell-cycle progression of developing thymocytes before positive selection (when cells are still CD4/CD8 double negative). Additionally, ZAP70-dependent signaling pathway may also contribute to primary B-cells formation and activation through B-cell receptor (BCR).

Note: This product is for in vitro research use only