

## ZAP-70 Tyrosine Kinase human, Recombinant

Cat. No. NATE-0738

Lot. No. (See product label)

### Introduction

**Description** ZAP-70 is protein tyrosine kinase of the Syk family that is localized exclusively to the cytosol of T cells and natural killer cells. It is required for T cell activation. It is activated by Lck-mediated phosphorylation of its tyrosine residues. ZAP-70 Tyrosine Kinase is a protein belongs to Syk family and is essential for T cell activation. It facilitates the upregulation of Fas ligand in activation-induced T cell apoptosis. Additionally, it also plays a pivotal role in LFA-1-dependent T Cell Migration.

**Applications** Human ZAP-70 Tyrosine Kinase was used for mapping the phosphorylation sites on LAT (linker for activation of T cells) for investigating the mechanism of activation of signalling proteins in T cells.

**Synonyms** ZAP-70 Tyrosine Kinase; Zeta-chain-associated protein kinase 70; ZAP-70; SRK; STCD; STD; TZK; ZAP70

### Product Information

**Species** Human

**Source** baculovirus infected insect cells (Histidine tagged)

**Form** buffered aqueous glycerol solution

**Molecular Weight** mol wt 70 kDa

**Purity** > 90% (SDS-PAGE)

**Activity** > 150 U/mg

**Buffer** Solution in 25 mM HEPES, pH 7.5, containing 150 mM NaCl, 0.5 mM DTT, and 50% glycerol.

**Pathway** Adaptive Immune System, organism-specific biosystem; B Cell Receptor Signaling Pathway, organism-specific biosystem; Generation of second messenger molecules, organism-specific biosystem; Immune System, organism-specific biosystem; Inflammatory Response Pathway, organism-specific biosystem; Natural killer cell mediated cytotoxicity, organism-specific biosystem; Natural killer cell mediated cytotoxicity, conserved biosystem

**Function** ATP binding; non-membrane spanning protein tyrosine kinase activity; nucleotide binding; protein binding; protein tyrosine kinase activity; protein tyrosine kinase activity; protein tyrosine kinase activity

**Unit Definition** One unit will phosphorylate 1 nmol polyglutamic acid:tyrosine per min at 37°C at pH 7.0.

### Storage and Shipping Information

**Stability** -70°C