

**Catalog No.: RP03400LQ** **Recombinant**

Species	Gene ID	Swiss Prot
Human	7535	P43403

**Tags**  
N-His-GST

**Synonyms**  
ZAP70; SRK; Syk-related tyrosine kinase;  
70 kDa zeta-chain associated protein;  
Tyrosine-protein kinase ZAP-70; ADMIO2;  
IMD48; STCD

<b>Source</b>	<b>Purification</b>
Baculovirus-Insect Cells	≥ 90 % as determined by SDS-PAGE; ≥ 90 % as determined by HPLC.

Calculated MW	Observed MW
97.5 kDa	85-100 kDa

< 1 EU/μg of the protein by LAL method.

Supplied as a 0.22 µm filtered solution in 50 mM Tris-HCl, 150 mM NaCl, 5% glycerol, 1 mM DTT. (pH 7.5). Contact us for customized product form or formulation.

Please use running water to thaw it quickly.

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ZAP-70 (Zeta-chain-associated protein kinase 70) is a protein normally expressed near the surface membrane of lymphocytes (T cells, natural killer cells, and a subset of B cells). It is most prominently known to be recruited upon antigen binding to the T cell receptor (TCR), and it plays a critical role in T cell signaling. The T cell receptor has no innate enzymatic activity. Due to this, T cell receptors rely on signaling molecules to transduce a signal from the cell membrane. ZAP-70 is a critical cytoplasmic tyrosine kinase that initiates a signal pathway downstream of an activated T cell receptor. Due to its role in lymphocyte signaling, ZAP-70 has been associated with several diseases affecting lymphocytes. ZAP-70 expression is a significant indicator of the survival of lymphocytes and has been notably associated with chronic lymphocytic leukemia (CLL). CLL is a cancer that develops from overproduction of B cells in the bone marrow.

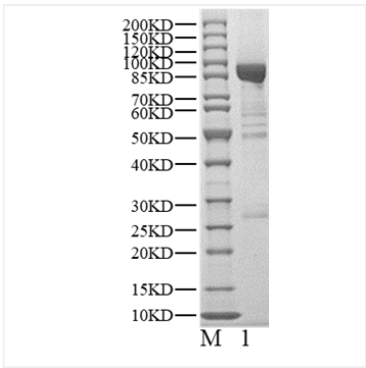
Recombinant Human ZAP70 Kinase is produced by Baculovirus-Insect Cells expression system. The target protein is expressed with sequence (Pro2-Ala619) of Human ZAP70 (Accession #P43403) fused with a N-His-GST tag.

The activity of ZAP70 is based on the ADP-GLO kinase activity assay quantifies kinase activity by measuring the conversion of ATP to ADP catalyzed by the kinase. Specific reagents are used to convert the ADP in the reaction back to ATP, resulting in the production of a luminescent signal.

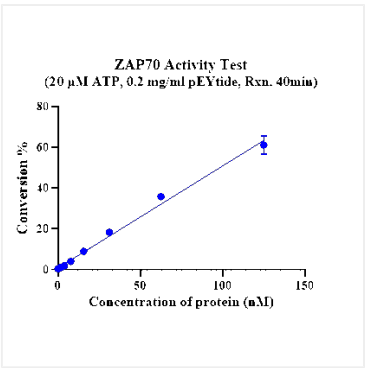
Store at -70°C. This product is stable at  $\leq -70^{\circ}\text{C}$  for up to 1 year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature.

Aliquots below 10  $\mu$ L are not advisable. Product must not be stored in diluted solutions. Avoid repeated freeze-thaw cycles.

Validation Data



Recombinant Human ZAP70 Kinase was resolved with SDS-PAGE under reducing (Lane 1) conditions.



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