Recombinant Human ZAP70 Kinase

Catalog No.: RP03400LQ

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Sequence Information

Species
Human

Gene ID
7535

Swiss Prot
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

Product Information

Source
Baculovirus-Insect Cells

Purification
≥ 90 % as determined by SDS-PAGE;≥ 90 % as determined by HPLC.

Calculated MW
97.5 kDa

Observed MW
85-100 kDa

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

Formulation
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.

Reconstitution
Please use running water to thaw it quickly.

Background

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.

Basic Information

Description
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.

Activity
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.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -70℃

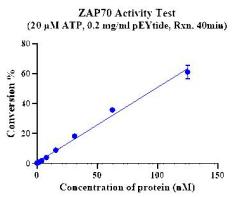
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

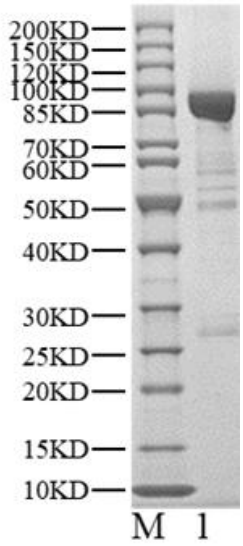
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Validation Data



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.



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