Datasheet for ABIN5709839

LCK Protein (AA 1-539, Isoform 3) (His-SUMO Tag)

1 Image

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Overview

Quantity:	100 µg
Target:	LCK
Protein Characteristics:	Isoform 3, AA 1-539
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This LCK protein is labelled with His-SUMO Tag.
Application:	SDS-PAGE (SDS)

Product Details

Sequence:	MGCGCSSHPE DDWMENIDVC ENCHYPIVPL DGKGTLLIRN GSEVRDPLVT YEGSNPPASP LQDNLVIALH SYEPSHDGDL GFEKGEQLRI LEQSGEWWKA QSLTTGQEGF IPFNFVAKAN SLEPEPWFFK NLSRKDAERQ LLAPGNTHGS FLIRESESTA GSFSLSVRDF DQNQGEVVKH YKIRNLDNGG FYISPRITFP GLHELVRHYT NASDGLCTRL SRPCQTQKPQ KPWWEDEWEV PRETLKLVER LGAGQFGEVW MGYYNGHTKV AVKSLKQGSM SPDAFLAEAN LMKQLQHQRL VRLYAVVTQE PIYIITEYME NDTLLDSQLE EKGLGASPWG NLGQQLLLLP TGSLVDFLKT PSGIKLTINK LLDMAAQIAE GMAFIEERNY IHRDLRAANI LVSDTLSCKI ADFGLARLIE DNEYTAREGA KFPIKWTAPE AINYGTFTIK SDVWSFGILL TEIVTHGRIP YPGMTNPEVI QNLERGYRMV RPDNCPEELY QLMRLCWKER PEDRPTFDYL RSVLEDFFTA TEGQYQPQP
Purification:	SDS-PAGE
Purity:	> 90 %

Target Details

Target:	LCK
Alternative Name:	LCK (LCK Products)
Background:	Non-receptor tyrosine-protein kinase that plays an essential role in the selection and maturation of developing T-cells in the thymus and in the function of mature T-cells. Plays a key role in T-cell antigen receptor (TCR)-linked signal transduction pathways. Constitutively associated with the cytoplasmic portions of the CD4 and CD8 surface receptors. Association of the TCR with a peptide antigen-bound MHC complex facilitates the interaction of CD4 and CD8 with MHC class II and class I molecules, respectively, thereby recruiting the associated LCK protein to the vicinity of the TCR/CD3 complex. LCK then phosphorylates tyrosines residues within the immunoreceptor tyrosine-based activation motifs (ITAM) of the cytoplasmic tails of the TCR-gamma chains and CD3 subunits, initiating the TCR/CD3 signaling pathway. Once stimulated, the TCR recruits the tyrosine kinase ZAP70, that becomes phosphorylated and activated by LCK. Following this, a large number of signaling molecules are recruited, ultimately leading to lymphokine production. LCK also contributes to signaling by other receptor molecules. Associates directly with the cytoplasmic tail of CD2, which leads to hyperphosphorylation and activation of LCK. Also plays a role in the IL2 receptor-linked signaling pathway that controls the T-cell proliferative response. Binding of IL2 to its receptor results in increased activity of LCK. Is expressed at all stages of thymocyte development and is required for the regulation of maturation events that are governed by both pre-TCR and mature alpha beta TCR. Phosphorylates other substrates including RUNX3, PTK2B/PYK2, the microtubule-associated protein MAPT, RHOH or TYROBP
Molecular Weight:	77.2 kDa
UniProt:	P06239
Pathways:	TCR Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Transition Metal Ion Homeostasis, Positive Regulation of Endopeptidase Activity, CXCR4-mediated Signaling Events, Thromboxane A2 Receptor Signaling

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

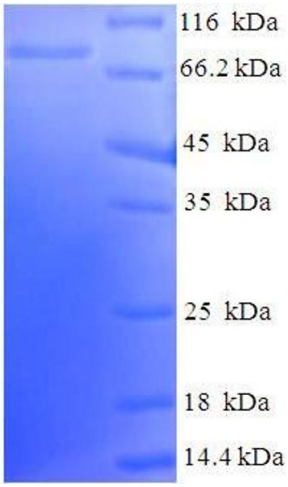
Handling

Format:	Liquid

Handling

Concentration:	0.1-2 mg/mL
Buffer:	20 mM Tris-HCl based buffer, pH 8.0
Storage:	-80 °C,4 °C,-20 °C
Storage Comment:	Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Images



SDS-PAGE

Image 1.