

LCK

LCK proto-oncogene, Src family tyrosine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: LCK

Synonyms: LSK, YT16

Product No.: 0238-0000-1

Lot: 003

Description: Human LCK, full length, amino acids M₁-P₅₀₉ (as in [NCBI/Protein](#) entry NP_005347.3), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: LCK Lot 003, was confirmed as LCK by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 92,762 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 4 mM reduced glutathione, 20 % glycerol

Storage temperature: -80°C

For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.140 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

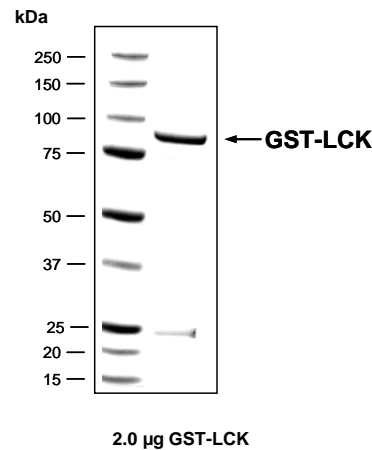
Biochemical Parameters:

Specific kinase activity (P_i transfer): 66 pmol/µg × min
ATP-K_M: 1.8 µM

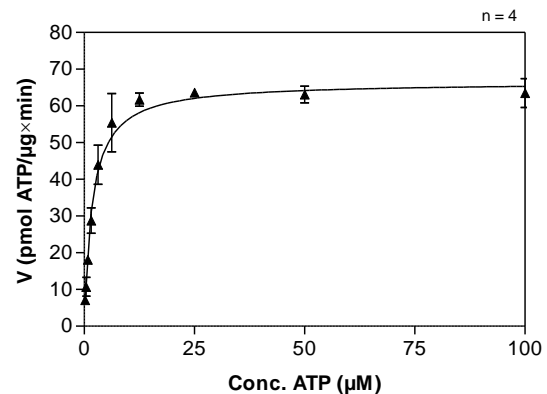
Additional assay technology:

LCK Lot 003 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

LCK Lot 003: Coomassie stain



LCK Lot 003: Determination of V_{max} and K_M value for ATP



Determination of K_M value & Specific activity:

- Assay conditions:
 - 60 mM HEPES-NaOH, pH 7.5
 - 3 mM MgCl₂
 - 3 mM MnCl₂
 - 3 µM Na-orthovanadate
 - 1.2 mM DTT
 - 50 µg/ml PEG_{20,000}
 - ATP (variable)
 - Substrate: Poly(Glu,Tyr)_{4:1}, 5 µg/ml
 - Kinase: 4 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

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GST-LCK Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQGWAQTF	GGGDHPPKSD	PMG HHHHHG	RRRASVAAGI	240
241	LVPRGS PGLD	GIYARGIQAS	MGARGRQCDG	YLQNSPLMGC	GCSSHPEDDW	MENIHVCENC	300
301	HYPILPLD GK	GTL LIRNGSE	VRDPLV TYEG	SNPLASPLQD	NLVIALHSYE	PSHDGDLGFE	360
361	KGEQLRILEQ	SGEWWKAQSL	TTGQEGFIPF	NFVAKANSLE	PEPWFFKNLS	RKDAERQLLA	420
421	PGNTHGSFLI	RESESTAGSF	SLSVRDFDQN	QGEVVKHYKI	RNLNNGGFYI	SPRITFPGLH	480
481	ELVRHYTNAS	DGLCTRLSRP	CQTQKPQKPW	WEDEWEVPRE	TLKLVERLGA	QGFGEVWMGY	540
541	YNGHTKVAVK	SLKQGSMSPD	AFLAEANLMK	QLQHQLVRL	YAVVTQEPIY	IITEYMENG S	600
601	LVDFLKTPSG	IKLTINKLLD	MAAQIAEGMA	FIEERNYIHR	DLRAANILVS	DTLSCKIADF	660
661	GLARLIEDNE	YTAREGAKFP	IKWTAPEAIN	YGTSTIKSDV	WSFGILLTEI	VTHGRIPYPG	720
721	MTNPEVIQNL	ERGYRMVRPD	NCPEELYQLM	RLCWKERPED	RPTFDYLRSV	LEDFFTATEG	780
781	QYQPOPQGR I	PAHWRPLLVD	PSSVPPGDLY	RLC			840

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **blue**: LCK **boxed**: variation from RefSeq

LCK wt ¹ Amino Acid Sequence							
1	MGC GCSSHPE	DDW MENIDVC	ENCH YPIVPL	DGK GTL LIRN	GSE VRDPLVT	YEG SNP PASP	60
61	LQD NLVIALH	SYEP SHDGD	GF EK GEQLRI	LEQ SGEWWKA	QSL TTGQEGF	IPFN VAKAN	120
121	SLE PEPWFFK	NLSR KDAERQ	LLAP GNTHGS	FLIR ESESTA	GSF SLSVRDF	DQN QGEVVKH	180
181	YKIR NLDNGG	FYIS PRITFP	GLHE LVRHYT	NASD GLCTRL	SRPC QTQKPQ	KPW WEDEWEV	240
241	PRE TLKLV ER	LGAG QFGEVW	MGYY NGHTKV	AVK SLKQGS	SPDA FLAEAN	LMK QLQHQL	300
301	VRL YAVVTQE	PIYI IITEYME	NGSL VDFLKT	PSGI KL TINK	LLD MAAQIAE	GMA FIEERNY	360
361	IHR DLRAANI	LVSD TLCKI	ADF GLARLIE	DNEY TAREGA	KFPI KWTAPE	AIN YGT FTIK	420
421	SDV WSFGILL	TEIV THGRIP	YPGM TNPEVI	QNL ERGYRMV	RPDN CPEELY	QLM RLCWKER	480
481	PED RPTFDYL	RSV LEDFFTA	TEG YQPOP				540

blue: LCK sequence expressed in recombinant protein **Red**: variant in recombinant protein

¹[NCBI/Protein](#) accession number NP_005347.3

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