

ProQinase™ ICK

ciliogenesis associated kinase 1

Recombinant Human Active Protein Kinase

HGNC Symbol: CILK1

Synonyms: MRK, LCK2, KIAA0936, MGC46090

Product No.: 1986-0000-1

Lot: 003

Description: Human ICK, N-terminal fragment, amino acids M₁-P₂₈₉ (as in [NCBI/Protein](#) entry NP_055735.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: ICK Lot 003, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 63920 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, 15 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 10 µl are not advisable. Avoid repeated freeze-thaw cycles!

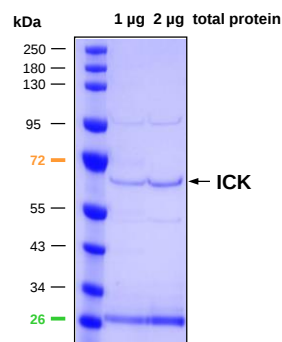
Protein concentration: 0.083 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

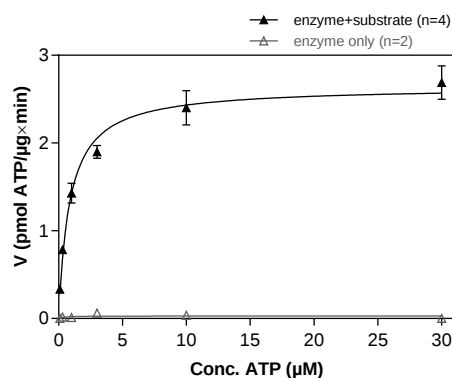
Specific kinase activity (P_i transfer): 2.6 pmol/µg*min

ATP-K_M: 0.9 µM

ICK Lot 003: Coomassie stain



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



- 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: RBER-GSK3 40 µg/ml
 - Kinase: 2 µg/ml

Assay technology:
Radiometric filter binding assay
MSFC membrane (96 well plate, Millipore)

Sequence information

GST-Kinase Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHHG	RDSLEVLFGG	240
241	MNRYTTIRQ	LGDTYGSVL	LGRSIESGEL	IAIKMKRKF	YSWEECMNLR	EVKSLKKLNH	300
301	ANVVKLKEVI	RENDHLYFIF	EYMKENLYQL	IKERNKLFPE	SAIRNIMYQI	LQGLAFIHKH	360
361	GFFHRDLKPE	NLLCMGPELV	KIADFGLARE	IRSKPPYTDY	VSTRWYRAPE	VLLRSTNYSS	420
421	PIDVWAVGCI	MAEVTTLRPL	FPGASEIDTI	FKICQVLGTP	KKTDWPEGYQ	LSSAMNFRWP	480
481	QCVPNNLKTL	IPNASSEAVQ	LLRDLQWDP	KKRPTASQAL	RYPYFQVGHP	PWELAAACRV	540
541	PPGDLYRLC						600

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: ICK fragment

ICK wt ¹ Amino Acid Sequence							
1	MNRYTTIRQL	GDGTYSVLL	GRSIESGELI	AIKKMKRKFY	SWEECMNLR	VKSLKKLNHA	60
61	NVVKLKEVIR	ENDHLYFIFE	YMKENLYQLI	KERNKLPES	AIRNIMYQIL	QGLAFIHKHG	120
121	FFHRDLKPEN	LLCMGPELVK	IADFGLAREI	RSKPPYTDYV	STRWYRAPEV	LLRSTNYSSP	180
181	IDVWAVGCIM	AEVYTLRPLF	PGASEIDTIF	KICQVLGTPK	KTDWPEGYQL	SSAMNFRWPQ	240
241	CVPNNLKTLL	PNASSEAVQL	LRDMLQWDPK	KRPTASQALR	YPYFQVGHP	GSTTQNLQDS	300
301	EKPQKGILEK	AGPPPYIKPV	PPAQPPAKPH	TRISSRQHQA	SQPPLHLTYP	YKAEVSRTDH	360
361	PSHLQEDKPS	PLLFPSLHKN	HPQSKITAGL	EHKNGEIKPK	SRRRWGLISR	STKDSDDWAD	420
421	LDDLDLFSPSL	SRIDLKNKKR	QSDDTLCRFE	SVLDLKPSEP	VGTGNSAPTQ	TSYQRRDTPT	480
481	LRSAKQHLYL	KHSRYLPGIS	IRNGILSNPG	KEFIPPNPWS	SSGLSGKSSG	TMSVISKVNS	540
541	VGSSSTSSSG	LTGNYPVSFL	KKEIGSAMQR	VHLAPIPDPS	PGYSSLKAMR	PHPGRPFHT	600
601	QPRSTPGLIP	RPPAAQPVHG	RTDWASKYAS	RR			660

blue: ICK sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_055735.1