

SIK1

salt-inducible kinase 1

Recombinant Human Active Protein Kinase

HGNC Symbol: SIK1

Synonyms: MSK, SNF1LK, SIK, SIK-1, SNF1LK

Product No.: 1338-0000-1

Lot: 007

Description: Human SIK1, N-terminal fragment, amino acids M₁-N₃₅₀ (as in [NCBI/Protein](#) entry NP_775490.2), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: SIK1 Lot007, was confirmed as SIK1 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 68,476 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 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.157 µg/µl

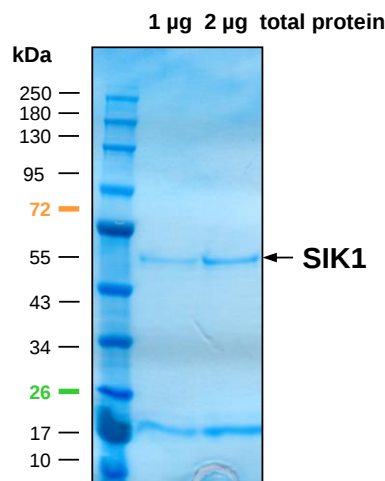
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

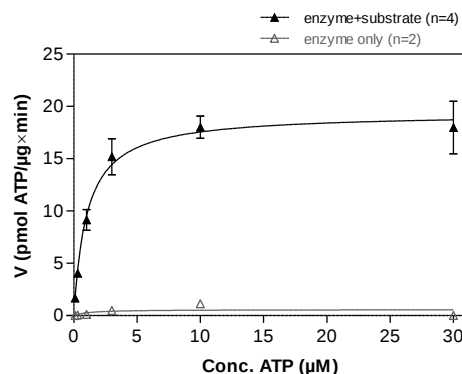
Specific kinase activity (P_i transfer): 19 pmol/µg × min

ATP-K_M: 1 µM

SIK1 Lot007:
Coomassie stain



SIK1 Lot007:
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-CHKtide 80 µg/ml
Kinase: 1 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

Additional assay technology:

SIK1 Lot007 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

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GST-SIK1 Recombinant Fusion Protein Amino Acid Sequence

1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGG	240
241	PLAMVIMSEF	SADPAGQGQG	QQKPLRVGFY	DIERTLGKGN	FAVVKLARHR	VTKTQVAIKI	300
301	IDKTRLDSSN	LEKIYREVQL	MKLLNHPHII	KLYQVMETKD	MLYIVTEFAK	NGEMFDYLT	360
361	NGHLSSENEAR	KKFWQILSAV	EYCHDHHIVH	RDLKTENLLL	DGNMDIKLAD	FGFGNFYKSG	420
421	EPLSTWCGSP	PYAAPEVFEG	KEYEGPQLDI	WSLGVVLYVL	VCGSLPFDGP	NLPTLRQVR	480
481	EGRFRIPFFM	SQDCESLIRR	MLVVDPARRI	TIAQIRQHRW	MRAEPCLPGP	ACPAFSAHSY	540
541	TSNLGDYDEQ	ALGIMQTLGV	DRQRTVESLQ	NSSYNHFAAI	YYLLLERLKE	YRN	600

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: SIK1 fragment

SIK1 wt¹ Amino Acid Sequence

1	MVIMSEFSAD	PAGQGQGQK	PLRVGFYDIE	RTLKGKNFAV	VKLARHRVTK	TQVAIKIIDK	60
61	TRLDSSNLEK	IYREVQLMKL	LNHPHIIKLY	QVMETKDMLY	IVTEFAKNGE	MFYDLYTSNGH	120
121	LSSENEARKKF	WQILSAVEYC	HDHHIVHRDL	KTENLLLDGN	MDIKLADFGF	GNFYKSGEPL	180
181	STWCGSPPPYA	APEVFEGKEY	EGPQLDIWSL	GVVLYVLVCG	SLPFDGPNLP	TLRQRVLEGR	240
241	FRIPFFMSQD	CESLIRMLV	VDPARITIA	QIRQHRWMRA	EPCLPGPACP	AFSAHSYTSN	300
301	LGDYDEQALG	IMQTLGVDRQ	RTVESLQNSS	YNHFAAIYYL	LLERLKEYRN	AQCARPGPAR	360
361	QPRPRSSDLS	GLEVPQEGLS	TDPFRPALLC	PQPQTLVQSV	LQAEMDCELQ	SSLQWPLFFP	420
421	VDASCSGVFR	PRPVSPSSLL	DTAISEEARQ	GPGLEEEQDT	QESLPSSTGR	RHTLAEVSTR	480
481	LSPLTAPCIV	VSPSTTASPA	EGTSSDSCLT	FSASKSPAGL	SGTPATQGLL	GACSPVRLAS	540
541	PFLGSQSATP	VLQAQGGG	AVLLPVSFQE	GRRASDTSLT	QGLKAFRQQL	RKTTRTKGFL	600
601	GLNLIKGLAR	QVCQAPASRA	SRGGLSPFHA	PAQSPGLHGG	AAGSREGWSL	LEEVLQEQRL	660
661	LQLQHHPAAA	PGCSQAPQPA	PAPFVIAPCD	GPAAAPLPST	LLTSGLPLLP	PPLLQTGASP	720
721	VASAAQLLDT	HLHIGTGPTA	LPAVPPPRLA	RLAPGCEPLG	LLQGDCEMED	LMPCSLGTFTV	780
781	LVQ						840

blue: SIK1 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_775490.2

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