

SIK2

salt-inducible kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: SIK2

Synonyms: QIK, SNF1LK2

Product No.: 1371-0000-1

Lot: 002

Description: Human SIK2, N-terminal fragment, amino acids M₁-R₂₇₉ (as in [NCBI/Protein](#) entry NP_056006.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: SIK2 Lot 002 was confirmed as SIK2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 60,308 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: 0.267 µg/µl

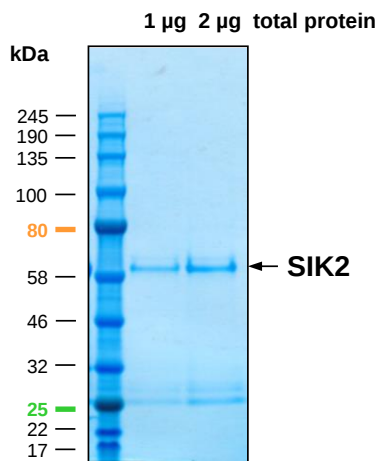
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

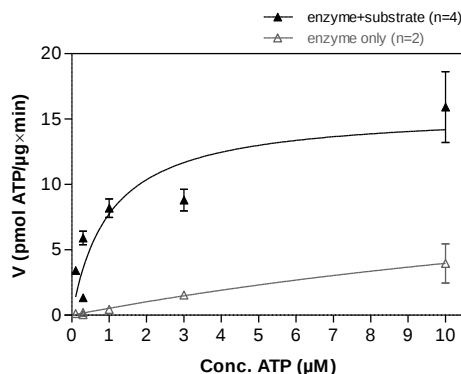
Specific kinase activity (P_i transfer): 16 pmol/µg × min

ATP-K_M: 1 µM

SIK2 Lot 002: Coomassie stain



SIK2 Lot 002: 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: CDC25C derived peptide 80 µg/ml
Kinase: 0.2 µg/ml
- Filter binding assay
MSIP membrane (Millipore)

Additional assay technology:

SIK2 Lot 002 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-SIK2 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGG	240
241	PMVMADGPRH	LQGPVRVGF	YDIEGTGK	NFAVVKLGRH	RITKTEVAIK	IDKSQDVA	300
301	NLEKIYREVQ	IMKMLDHPHI	IKLYQVMEK	SMLYLVTEYA	KNGEIFDYLA	NHGRNNESEA	360
361	RRKFWQILSA	VDYCHGRKIV	HRDLKAENLL	LDNNMNIKIA	DFGFGNFFKS	GELLATWCGS	420
421	PPYAAPEVFE	GQQYEGPQLD	IWSMGVVLYV	LVCALPFDG	PTLPILRQRV	LEGRFRIPYF	480
481	MSEDCEHLIR	RMLVLDPSKR	LTIAQIKEHK	WMLIEVPVQR			540

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: SIK2 fragment

SIK2 wt ¹ Amino Acid Sequence							
1	MVMADGPRHL	QGPVRVGFY	DIEGTGKGN	FAVVKLGRHR	ITKTEVAIKI	IDKSQDVA	60
61	LEKIYREVQI	MKMLDHPHII	KLYQVMEKTS	MLYLVTEYAK	NGEIFDYLAN	HGRNNESEAR	120
121	RKFWQILSAV	DYCHGRKIVH	RDLKAENLLL	DNNMNIKIAD	FGFGNFFKSG	ELLATWCGSP	180
181	PYAAPEVFEG	QQYEGPQLDI	WSMGVVLYVL	VCGALPFDGP	TLPILRQRVL	EGRFRIPYFM	240
241	SEDCEHLIRR	MLVLDPSKRL	TIAQIKEHKW	MLIEVPVQRP	VLYPQEQENE	PSIGEFNEQV	300
301	LRLMHSGLID	QOKTIESLQN	KSYNHFAAIY	FLLVERLKSH	RSSFPEVQRL	DGRQRRPSTI	360
361	AEQTVAKAQT	VGLPVTMHSP	NMRLRSALL	PQASNVEAFS	FPASGCQAEA	AFMEECVDT	420
421	PKVNGCLLDP	VPPVLVRKGC	QSLPSNMET	SIDEGLETEG	EAEEDPAHAF	EAFQSTRSGQ	480
481	RRHTLSEVTN	QLVVMGAGK	IFSMNDSPSL	DSVDSEYDMG	SVQRDLNFLE	DNPSLKDIML	540
541	ANQPSPRMTS	PFISLRPTNP	AMQALSSQKR	EVHNRSPVSF	REGRRASDTS	LTQGIVAFRQ	600
601	HLQNLARTKG	ILELNKVQLL	YEQIGPEADP	NLAPAAPQLQ	DLASSCPQEE	VSQQQESVST	660
661	LPASVHPQLS	PRQSLETQYL	QHRLQKPSLL	SKAQNTCQLY	CKEPPRSLEQ	QLQEHRLQK	720
721	RLFLQKQSQL	QAYFNQMIA	ESSYPQPSQQ	LPLPRQETPP	PSQQAPPFSI	TQPLSPVLEP	780
781	SSEQMQYSPF	LSQYQEMQLQ	PLPSTSGPRA	APPLPTQLQQ	QQPPPPPPPP	PPRQPGAAPA	840
841	PLQFSYQTCE	LPSAASPAPD	YPTPCQYPVD	GAQQSDLTGP	DCPRSPGLQE	APSSYDPLAL	900
901	SELPGLFDCE	MLDAVDPQHN	GYVLVN				960

blue: SIK2 sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/Protein) accession number NP_056006.1

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