

ProQinase™ SIK3

SIK family kinase 3

Recombinant Human Active Protein Kinase

HGNC Symbol: SIK3

Synonyms: SIK-3, L19, QSK

Product No.: 1340-0000-1

Lot: 003

Description: Human SIK3, internal kinase domain fragment, amino acids M₅₉-L₃₅₈ (as in [NCBI/Protein](#) entry NP_001353615.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: SIK3 Lot 003, was confirmed as SIK3 by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 68476 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: 0.139 µg/µl

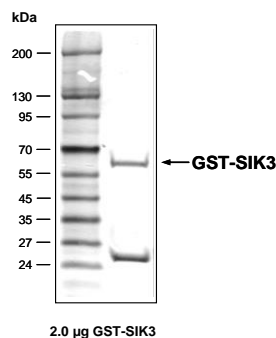
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

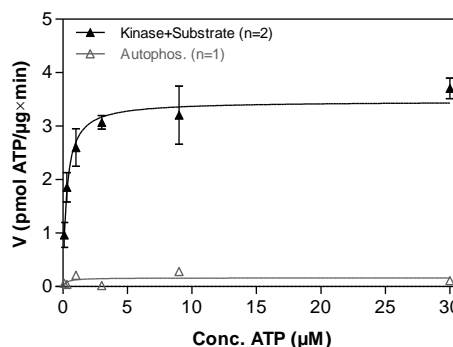
Specific kinase activity (P_i transfer): 3.5 pmol/µg*min

ATP-K_M: 0.3 µM

SIK3 Lot 003: Coomassie stain



SIK3 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-CHKtide 80 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

Sequence information

GST-SIK3 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHGG	RDSLEVLFGG	240
241	PLAMLMPARI	GYEIDRTIG	KGNFAVVKRA	THLVTKAKVA	IKIIDKTQLD	EENLKKIFRE	300
301	VQIMKMLCHP	HIIRLYQVME	TERMIYLVTE	YASGGEIFDH	LVAHGRMAEK	EARRKFKQIV	360
361	TAVYFCHCRN	IVHRDLKAEN	LLLDANLNK	IADFGFSNLF	TPGQLLKTWC	GSPPYAAPPEL	420
421	FEGKEYDGP	VDIWSLGVVL	YVLVCGALPF	DGSTLQNLRA	RVLGKFRIP	FFMSTECEHL	480
481	IRHMLVLDPN	KRLSMEQICK	HKWMLGDDAD	PNFDRLIAEC	QQLKEERQVD	PLNEDVLLAM	540
541	EDMGL						600

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: SIK3 fragment

SIK3 wt ¹ Amino Acid Sequence							
1	MAAAAASGAG	GAAGAGTGGG	GPAGRLPPP	APGSPAAPAA	VSPAAGQPRP	PAPASRGPMP	60
61	ARIGYYEIDR	TIGKGNFAVV	KRATHLVTKA	KVAIKIIDKT	QLDEENLKKI	FREVQIMKML	120
121	CHPHIIRLYQ	VMETERMIYL	VTEYASGGEI	FDHLVAHGRM	AEKEARRKFK	QIVTAVYFCH	180
181	CRNIVHRDLK	AENLLLDANL	NIKIADFGFS	NLFTPGQLLK	TWCGSPPYAA	PELFEGKEYD	240
241	GPKVDIWSLG	VVLYVLVCGA	LPDFDSTLQN	LRARVLSGKF	RIPFFMSTEC	EHLIRHMLVL	300
301	DPNKRLSMEQ	ICKHKWMKLG	DADPNFDRLI	AECQQLKEER	QVDPLNEDVL	LAMEDMGLDK	360
361	EQTQLQSLRSD	AYDHYSIAYS	LLCDRHKRHK	TLRLGALPSM	PRALAFQAPV	NIQAEQAGTA	420
421	MNISVPQVQL	INPENQIVEP	DGTLNLDSD	GEEPSPEALV	RYLSMRRHTV	GVADPRTEVM	480
481	EDLQKLLPGF	PGVNPQAPFL	QVAPNVNFMH	NLLPMQNLQP	TGQLEYKEQS	LLQPPTLQLL	540
541	NGMGPLGRR	SDGGANIQLH	AQQLLKRPRG	PSPLVTMTPA	VPAVTPVDEE	SSDGEPPDQEA	600
601	VQRYLANRSK	RHTLAMTNPT	AEIIPDLQRQ	LGQQPFRSRV	WPHLVPDQH	RSTYKDSNTL	660
661	HLPTERFSPV	RRFSDGAASI	QAFKAHLEKM	GNNSSIKQLQ	QECEQLQKMY	GGQIDERTLE	720
721	KTQQQHMLYQ	QEQHHQILQQ	QIQDSICPPQ	PSPPLQACE	NQPALLTHQL	QRLRIQPSSE	780
781	PPNHNNHLF	RQPSNSPPPM	SSAMIQPHGA	ASSSQFQGLP	SRSALFQQQP	ENCSSPPNVA	840
841	LTCLGMQPPA	QSQQVTIQVQ	EPVDMLSNMP	GTAAGSSGRG	ISISPSAGQM	QMQRHTNLMA	900
901	TLSYGHRPLS	KQLSADSAEA	HSLNVNRFSP	ANYDQAHLHP	HLFSDQSRGS	PSSYSPSTGV	960
961	GFSPTQALKV	PPLDQFPPTF	PSAHQQPPHY	TTSALQQALL	SPTPPDYTRH	QQVPHILQGL	1020
1021	LSPRHSLTGH	SDIRLPPTFE	AQLIKRQQQQ	RQQQQQQQQQ	QEYQELFRHM	NQGDAGSLAP	1080
1081	SLGGQSMTER	QALSQNADS	YHHHTSPQHL	LQIRAQECVS	QASSPTPPHG	YAHQPALMHS	1140
1141	ESMEEDCSCE	GAKDGFQDSK	SSSTLTGKCH	DSPLLLSTGG	PGDPESLLGT	VSHAQELGIH	1200
1201	PYGHQPTAAF	SKNKVPSREP	VIGNCMDRSS	PGQAVELPDH	NGLGYPARPS	VHEHHRPRAL	1260
1261	QRHHTIQNSD	DAYVQLDNLP	GMSLVAGKAL	SSARMSDAVL	SQSSLMGSQQ	FQDGENEECG	1320
1321	ASLGGHEHPD	LSDGSQHLNS	SCYPSTCITD	ILLSYKHPEV	SFSMEQAGV		1380

blue: SIK3 sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/nuccore/NC_001353615.1) accession number NP_001353615.1