

## ProQinase™ SIK2

salt-inducible kinase 2

Recombinant Human Active Protein Kinase

HGNC Symbol: SIK2

Synonyms: QIK, SNF1LK2

Product No.: 1371-0000-1

Lot: 001

**Description:** Human SIK2, N-terminal fragment, amino acids M<sub>1</sub>-R<sub>279</sub> (as in [NCBI/Protein](#) entry NP\_056006.1), N-terminal GST-HIS<sub>6</sub> fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

**Product identity:** SIK2 Lot 001 was confirmed as SIK2 by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW**<sub>Fusion Protein</sub>: 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 10µl are not advisable. Avoid repeated freeze-thaw cycles!

**Protein concentration:** 0.187 µg/µl

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

**Biochemical Parameters:**

Specific kinase activity (P<sub>i</sub> transfer): 74 pmol/µg × min

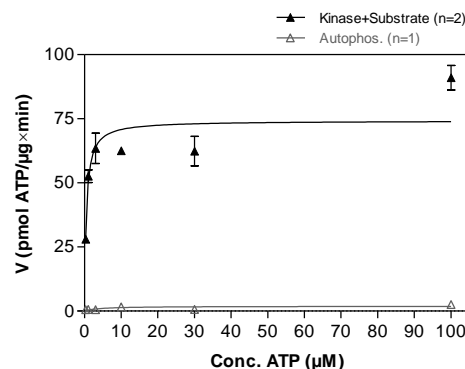
ATP-K<sub>M</sub>: 0.5 µM

### SIK2 Lot 001: Coomassie stain



2.0 µg GST-SIK2

### SIK2 Lot 001: Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP



- Assay conditions:  
60 mM HEPES-NaOH, pH 7.5  
3 mM MgCl<sub>2</sub>  
3 mM MnCl<sub>2</sub>  
3 µM Na-orthovanadate  
1.2 mM DTT  
50 µg/ml PEG<sub>20,000</sub>  
ATP (variable)  
Substrate: CDC25C derived peptide 80 µg/ml  
Kinase: 0.4 µg/ml
- Filter binding assay  
MSPH membrane (Millipore)

### Additional assay technology:

SIK2 Lot 001 was also successfully tested by Reaction Biology 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  | HLYERDEGDK  | WRNKKFELGL | EFPNLPYYID   | 60  |
| 61  | GDVKLTQSMA  | IIRYIADKHN  | MLGGCPKERA  | EISMLEGAVL  | DIRYGVSRIA | YSKDFETLKV   | 120 |
| 121   | DFLSKLP EML | KMFKDRLCHK  | TYLNGDHVTH  | PDFMLYDALD  | VVLYMDPMCL | DAFPKLVCFK   | 180 |
| 181   | KRIEAI PQID | KYLKSSKYIA  | WPLQG WQATF | GGGDHPPKSD  | PMGHHHHHG  | RDSLEVLFCG   | 240 |
| 241   | PMVMADGPRH  | LQ RGPVRVGF | YDIEGTLGKG  | NFAVVKLGRH  | RITKTEVAIK | IIDKSQ L DAV | 300 |
| 301   | NLEKIYREVQ  | IMKMLDHPHI  | IKLYQVME TK | SMLYLVTEYA  | KNGEIFDYLA | NHGR L NESEA | 360 |
| 361   | RRKFWQILSA  | VDYCHGRKIV  | HRDLKAENLL  | LDNNMNIKIA  | DFGFGNFFKS | GELLATWCGS   | 420 |
| 421   | PPYAAPEVFE  | GQQYEGPQLD  | IWSMGVVLYV  | LVC GALPFDG | PTLPILRQRV | LEGRFRIPYF   | 480 |
| 481   | MSEDCEHLIR  | RMLVLDPSKR  | LTIAQIKEHK  | WMLIEVPVQR  |            |              | 540 |

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

| SIK2 wt <sup>1</sup> Amino Acid Sequence |             |             |             |             |             |              |     |
|--|-------------|-------------|-------------|-------------|-------------|--------------|-----|
| 1  | MVMADGPRHL  | QRGPVRVGFY  | DIEGTLGKGN  | FAVVKLGRHR  | ITKTEVAIKI  | IDKSQ L DAVN | 60  |
| 61                                       | LEKIYREVQI  | MKMLDHPHII  | KLYQVME TKS | MLYLVTEYAK  | NGEIFDYLAN  | HGR L NESEAR | 120 |
| 121                                      | RKFWQILSAV  | DYCHGRKIVH  | RDLKAENLLL  | DNNMNIKIAD  | FGFGNFFKSG  | ELLATWCGSP   | 180 |
| 181                                      | PYAAPEVFEG  | QQYEGPQLDI  | WSMGVVLYVL  | VCGALPFDGP  | TLPI LRQRVL | EGRFRIPYFM   | 240 |
| 241                                      | SEDCEHLIRR  | MLVLDPSKRL  | TIAQIKEHKW  | MLIEVPVQR P | VLYPQEQENE  | PSIGEFNEQV   | 300 |
| 301                                      | LRLMHS LGID | QOKTIESLQN  | KSYNHFAAIY  | FLLVERLKSH  | RSSF PVEQRL | DGRQRRPSTI   | 360 |
| 361                                      | AEQTVAKAQT  | VGLPVTMHSP  | NMRLRSALL   | PQASNVEAFS  | FPASGCQAEA  | AFMEEECVDT   | 420 |
| 421                                      | PKVNGCLLDP  | VPPVLVRKGC  | QSLPSNMMET  | SIDEGLETEG  | EAEEDPAHAF  | EAFQSTRSGQ   | 480 |
| 481                                      | RRHTLSEVTN  | QLVVM PGAGK | 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  | QLQEHRLQQK   | 720 |
| 721                                      | RLFLQKQSQL  | QAYFNQM QIA | ESSYPQPSQQ  | LPLPRQETPP  | PSQQAPPFSL  | 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

<sup>1</sup>[NCBI/Protein](#) accession number NP\_056006.1