

ProQinase™ TNIK

TRAF2 and NCK interacting kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: TNIK

Synonyms: KIAA0551

Product No.: 1988-0000-1

Lot: 001

Description: Human TNIK, N-terminal fragment, amino acids M₁-E₂₉₅ (as in [NCBI/Protein](#) entry NP_055843.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: TNIK Lot 001, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 63609 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!

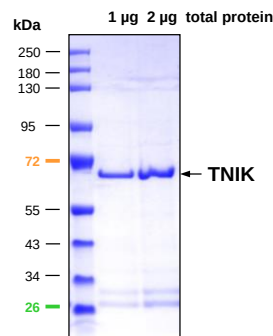
Protein concentration: 0.491 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

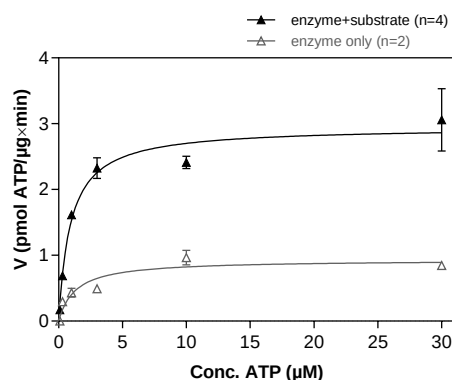
Specific kinase activity (P_i transfer): 3 pmol/µg*min

ATP-K_M: 0.9 µM

TNIK Lot 001: Coomassie stain



TNIK Lot 001: 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: RB-S6P 80 µg/ml
 - Kinase: 1 µg/ml

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

Sequence information

GST-TNIK 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	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHHG	RDSLEVLFGG	240
241	MASDSPARS	LDEIDLSALR	DPAGIFELVE	LVNGTYGQV	YKGRHVKTGQ	LAAIKVMDVT	300
301	GDEEEIKQE	INMLKKYSHH	RNIATYYGAF	IKKNPPGMDD	QLWLVMFCG	AGSVTDLIK	360
361	TKGNLTKEEW	IAYICREILR	GLSHLHQHKV	IHRDIKQNV	LLTENAELVL	VDFGVSAQLD	420
421	RTVGRNTFI	GTPYWMPEV	IACDENPDAT	YDFKSDLWSL	GITAEMAEG	APPLCDMHPM	480
481	RALFLIPRNP	APRLKSKKWS	KKFQSFIESC	LVKNHSQRPA	TEQLMKHPFI	RDQPNEPWEL	540
541	AAACRVPPGD	LYRLC					600

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

TNIK wt ¹ Amino Acid Sequence							
1	MASDSPARSL	DEIDLSALRD	PAGIFELVEL	VGNGTYGQVY	KGRHVKTGQL	AAIKVMDVTG	60
61	DEEEIKQEI	NMLKKYSHHR	NIATYYGAFI	KKNPPGMDDQ	LWLVMFCGA	GSVTDLIKNT	120
121	KGNTLKEEWI	AYICREILRG	LSHLHQHKVI	HRDIKQNVL	LTENAELVL	DFGVSAQLDR	180
181	TVGRNTFIG	TPYWMPEVI	ACDENPDATY	DFKSDLWSLG	ITAEMAEGA	PPLCDMHPMR	240
241	ALFLIPRNP	PRLKSKKWSK	KFQSFIESCL	VKNHSQRPAT	EQLMKHPFIR	DQPNEQVRI	300
301	QLKDHIDRTK	KKRGEKDETE	YEYSGSEEEE	EENDSGEPSS	ILNLPGESTL	RRDFLRQLA	360
361	NKERSEALRR	QQLQEQREN	EEHKRQLLAE	RQKRIEEQKE	QRRRLEEQQR	REKELRKQQE	420
421	REQRHRYEEQ	MRREEERRRA	EHEQEYIRRQ	LEEEQRQLEI	LQQQLLHEQA	LLLEYKRKQL	480
481	EEQRQAERLQ	RQLKQERDYL	VSLQHQRQEQ	RPVEKKPLYH	YKEGMSPSEK	PAWAKEVEER	540
541	SRLNRQSSPA	MPHKVANRIS	DPNLPPRSES	FSISGVQPAR	TPPMLRPVDP	QIPHLVAVKS	600
601	QGPALTASQS	VHEQPTKGLS	GFQEALNVT	HRVEMPRQNS	DPTSENPLP	TRIEKFDRSS	660
661	WLRQEEDIPP	KVPQRTTSS	PALARKNSPG	NGSALGPRLG	SQPIRASNP	LRRTEPILES	720
721	PLQRTSSGSS	SSSTPSSQP	SSQGSQPGS	QAGSSERTV	RANSKSEGP	VLPHEPAVK	780
781	PEESRDITRP	SRPASYYKAI	DEDLTALAKE	LRELRIETN	RPMKKVTDYS	SSSEESSE	840
841	EEEEEDGESET	HDGTVAVSDI	PRLIPTGAPG	SNEQYNVGMV	GTHGLETS	DSFSGSISRE	900
901	GTLMIRETSG	EKKRSGHSDS	NGFAGHINLP	DLVQQSHSPA	GTPTEGLGRV	STHSQEMDSG	960
961	TEYGMGSSTK	ASFTPFVDPR	VYQTSPTDED	EDEESSAAA	LFTSELLRQE	QAKLNEARKI	1020
1021	SVVNVNPTNI	RPHSDTPEIR	KYKKRFNSEI	LCAALWGVNL	LVGTENGLML	LDRSGQGVY	1080
1081	NLINRRRFQQ	MDVLEGLNVL	VTISGKKNKL	RVYYLSWLRN	RILHNDPEVE	KKQGWITVGD	1140
1141	LEGCIHYKV	KYERIKFLVI	ALKNAVEIYA	WAPKPYHKFM	AFKSFADLQH	KPLLVDLTVE	1200
1201	EGQRLKVIFG	SHTGFHVIDV	DSGNSYDIYI	PSHIQGNITP	HAIVILPKTD	GMEMLVCYED	1260
1261	EGVYVNTYGR	ITKDVVLQWG	EMPTSVAYIH	SNQIMGWGEK	AIEIRSVETG	HLDGVMHHR	1320
1321	AQRLKFLCER	NDKVVFFASVR	SGGSSQVFFM	TLNRNSMMNW			1380

blue: TNIK sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_055843.1