

ProQinase™ TNK1

tyrosine kinase non receptor 1

Recombinant Human Active Protein Kinase

HGNC Symbol: TNK1

Synonyms: /

Product No.: 1413-0000-1

Lot: 005

Description: Human TNK1, internal fragment, amino acids G₁₀₆-D₃₉₀ (as in [NCBI/Protein](#) entry NP_003976.2), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: TNK1 Lot 005, was confirmed as TNK1 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 59,310 Da 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

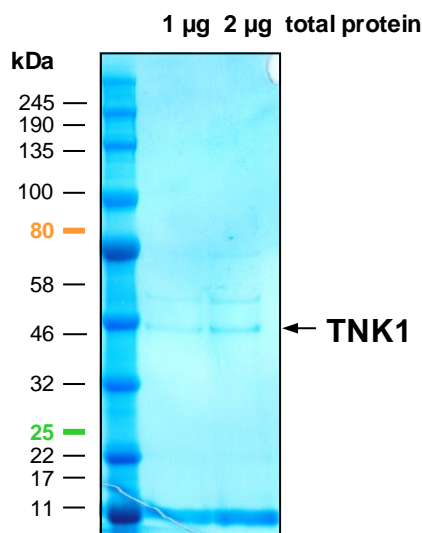
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.132 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

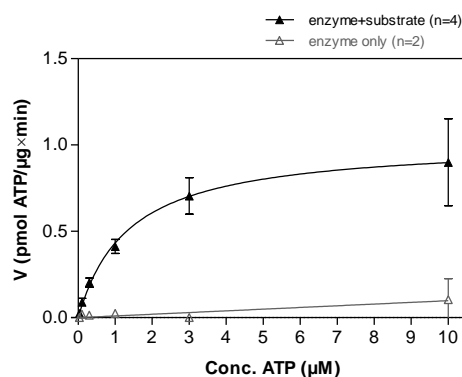
Biochemical Parameters:

Specific kinase activity (P_i transfer): 1 pmol/µg × min
ATP-K_M: 1.4 µM

TNK1 Lot 005: Coomassie stain



TNK1 Lot 005: Determination of V_{max} and K_M value for ATP



Determination of K_M value & Specific activity:

- 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: TRK-C derived peptide, 40 µg/ml
 - TNK1: 2 µg/ml
- Filter binding assay
- MSIP membrane (Millipore)

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GST-TNK1 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDKVLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGQ	240
241	PLAMLGKCL	IPEGAVCRGE	LLGSGCFGVV	HRGLWTLPSG	KSVPVAVKSL	RVGPEGPMGT	300
301	ELGDFLREVS	VMMNLEHPHV	LRLHGLVLGQ	PLQVMELAP	LGSLHARLTA	PAPTPLLVA	360
361	LLCLFLRQLA	GAMAYLGARG	LVHRDLATRN	LLLASPRTIK	VADFGLVRPL	GGARGRYVMG	420
421	GPRPIPYAWC	APESLRHGAF	SSASDVWMFG	VTLWEMFSGG	EEPWAGVPPY	LILQRLDRA	480
481	RLPRPPLCSR	ALYSLALRCW	APHPADRPSF	SHLEGLLQEA	GPSEACCVRD		540

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: TNK1 fragment

TNK1 wt ¹ Amino Acid Sequence							
1	MLPEAGSLWL	LKLLRDIQLA	QFYWPILEEL	NVTRPEHFDF	VKPEDLDGIG	MGRPAQRRLS	60
61	EALKRLRSGP	KSKNWVYKIL	GGFAPEHKEP	TLPSDSPRHL	PEPEGGLKCL	IPEGAVCRGE	120
121	LLGSGCFGVV	HRGLWTLPSG	KSVPVAVKSL	RVGPEGPMGT	ELGDFLREVS	VMMNLEHPHV	180
181	LRLHGLVLGQ	PLQVMELAP	LGSLHARLTA	PAPTPLLVA	LLCLFLRQLA	GAMAYLGARG	240
241	LVHRDLATRN	LLLASPRTIK	VADFGLVRPL	GGARGRYVMG	GPRPIPYAWC	APESLRHGAF	300
301	SSASDVWMFG	VTLWEMFSGG	EEPWAGVPPY	LILQRLDRA	RLPRPPLCSR	ALYSLALRCW	360
361	APHPADRPSF	SHLEGLLQEA	GPSEACCVRD	VTEPGALRME	TGDPITVIEG	SPDSTIWKQ	420
421	NGRTFKVGSF	PASAVTLADA	GGLPATRPVH	RGTPARGDQH	PGSIDGDRKK	ANLWDAPPAR	480
481	GQRNMPLEP	MKGISRSLES	VLSLGPRTG	GGSSPPEIRQ	ARAVPQGPPG	LPPRPLSSS	540
541	SPQPSQPSRE	RLPWPKRKP	HNHPMGMPGA	RKAAALSGGL	LSDPELQRKI	MEVELSVHGV	600
601	THQECQTALG	ATGGDVVSAI	RNLKVDQLFH	LSSRSRADCW	RILEHYQWDL	SAASRYVLAR	660
661	P						720

blue: TNK1 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_003976.2