

ProQinase™ TBK1

TANK binding kinase 1

Recombinant Human Active Protein Kinase

HGNC Symbol: TBK1

Synonyms: NAK, T2K

Product No.: 0749-0000-1

Lot: 005

Description: Human TBK1, full length, amino acids M₁-L₇₂₉ (as in [NCBI/Protein](#) entry NP_037386.1), untagged, expressed in Sf9 insect cells

Product identity: TBK1 Lot 005, has been verified by mass spectrometry LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 84225 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, 20 % glycerol

Storage temperature: -80°C

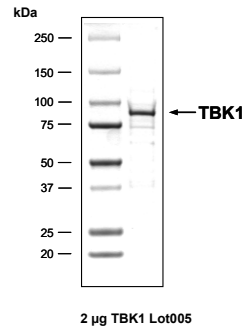
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.159 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

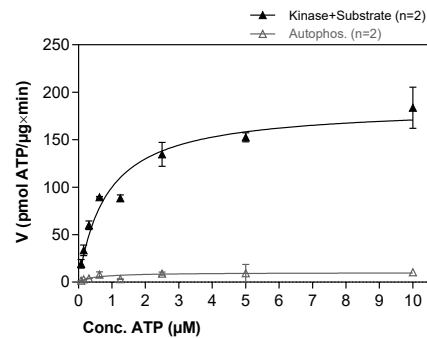
Biochemical Parameters:

Specific kinase activity (P_i transfer): 185 pmol/µg*min
ATP-K_M: 0.9 µM

TBK1 LOT005: Coomassie stain



TBK1 LOT005: 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: Casein 100 µg/ml
 - Kinase: 0.2 µg/ml

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

Recombinant Proteins

Sequence information

TBK1 Recombinant Protein Amino Acid Sequence							
1	GPLAMLMQST	SNHLWLLSDI	LGQGATANVF	RGRHKKTGDL	FAIKVFNNIS	FLRPVDVQMR	60
61	EFEVLKKNLH	KNIVKLF AIE	EETTTRHKVL	IMEFCPCGSL	YTVLEEPSNA	YGLPESEFLI	120
121	VLRDVVGGMN	HLRENGIVHR	DIKPGNIMRV	IGEDGQSVYK	LTDFGAAREL	EDDEQFVSLY	180
181	GTEEYLHPDM	YERAVLRKDH	QKQYGATVDL	WSIGVTFYHA	ATGSLPFRPF	EGPRRNKEVM	240
241	YKIITGKPSG	AISGVQKAEN	GPIDWSGDMP	VSCSLSRGLQ	VLLTPVLANI	LEADQEKCWG	300
301	FDQFFAETSD	ILHRMVIHVF	SLQOMTAHKI	YIHSYNTATI	FHELVIKQTK	IISSNQELIY	360
361	EGRRLVLEPG	RLAQHFPKTT	EENPIFVVS	EPLNTIGLIY	EKISLPKVHP	RYDLGDGASM	420
421	AKAITGVVVCY	ACRIASTLLL	YQELMRKGR	WLIELIKDDY	NETVHKKTEV	VITLDFCIRN	480
481	IEKTVKVYEK	LMKINLEAAE	LGEISDIHTK	LLRLSSSQGT	IETSLQDIDS	RLSPGGSLAD	540
541	AWAHQEGTHP	KDRNVEKLQV	LLNCMTEIYY	QFKKDKAERR	LAYNEEQIHK	FDKQKLYHA	600
600	TKAMTHFTDE	CVKKYEAFLN	KSEEWIRKML	HLRKQLLSLT	NQCFDIEEEV	SKYQEYTNEL	660
661	QETLPQKMF	ASSGIKHTMT	PIYPSSNTLV	EMTLGMKKLK	EEMEGVVKEL	AENNHILERF	720
721	GSLTMDGGLR	NVDCL					780

1-6: legacy from 3C cleavage blue: TBK1

TBK1 wt ¹ Amino Acid Sequence							
1	MQSTSNHLWL	LSDILQGQAT	ANVFRGRHKK	TGDLFAIKVF	NNISFLRPVD	VQMRFEVLK	60
61	KLNHKNIVKL	FAIEEETTR	HKVLIMEFCP	CGSLYTVLEE	PSNAYGLPES	EFLIVLRD	120
121	GGMHLRENG	IVHRDIKPGN	IMRVIGEDGQ	SVYKLDFGA	ARELEDDEQF	VSLYGTEEYL	180
181	HPDMYERAVL	RKDHQKQYGA	TVDLWSIGVT	FYHAATGSLP	FRPFEGPRRN	KEVMYKIITG	240
241	KPSGAISGVQ	KAENGPIDWS	GDMPVSCSLS	RGLQVLLTPV	LANILEADQE	KCWGFDQFFA	300
301	ETSDILHRMV	IHFVSLQOMT	AHKIYIHSYN	TATIFHELVI	KQTKIISSNQ	ELIYEGRRLV	360
361	LEPGRLAQHF	PKTTEENPIF	VVSREPLNTI	GLIYEKISLP	KVHPRYDLG	DASMAKITG	420
421	VVCYACRIAS	TLLLYQELMR	KGIRWLIELI	KDDYNETVHK	KTEVVITLDF	CIRNIEKTVK	480
481	VYEKLMKINL	EAAELGEISD	IHTKLLRLSS	SQGTIETSLQ	DIDSRLSPGG	SLADAWAHQE	540
541	GTHPKDRNVE	KLQVLLNCMT	EIYYQFKDK	AERRLAYNEE	QIHKFDKQKL	YYHATKAMTH	600
600	FTDECVKKYE	AFLNKSEEWI	RKMLHLRKQL	LSLTNQCFDI	EEEVSKYQEY	TNELQETLPQ	660
661	KMFTASSGIK	HTMTPIYPSS	NTLVEMTLGM	KKLKEEMEGV	VKELAENNI	LERFGSLTMD	720
721	GGLRNVDCL						780

blue: TBK1 sequence expressed in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/protein/NP_037386.1) accession number NP_037386.1