

ProQinase™ TIE2 wt

TEK receptor tyrosine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: TEK

Synonyms: CD202b, TIE-2, VMCM1

Product No.: 0861-0000-1

Lot: 009

Description: Human TIE2, C-terminal fragment, amino acids Q₇₇₁-A₁₁₂₄ (as in [NCBI/Protein](#) entry NP_000450.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: TIE2 wt Lot 009, was confirmed as TIE2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 68,979 Da Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: in vitro auto activation

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: 0.256 µg/µl

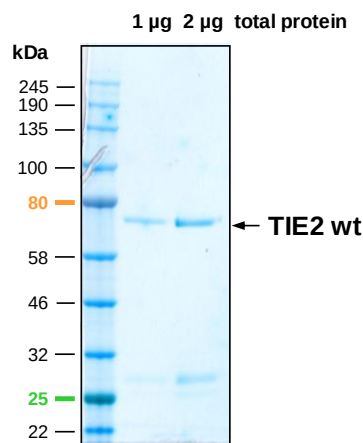
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

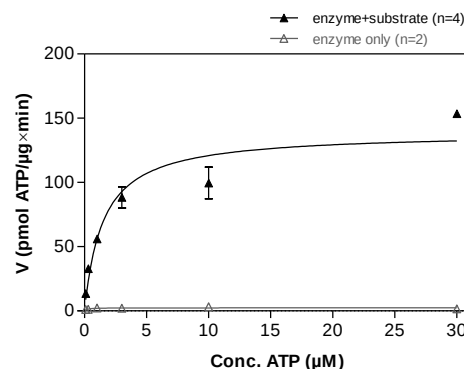
Specific kinase activity (P_i transfer): 139 pmol/µg × min

ATP-K_M: 1.5 µM

TIE2 wt Lot 009: Coomassie stain



TIE2 wt Lot 009: 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: Poly(Ala,Glu,Lys,Tyr)_{6:2:5:1} 20 µg/ml
 - Kinase: 0.5 µg/ml
- Filter binding assay
- MSFC membrane (Millipore)

Additional assay technology:

TIE2 wt Lot 009 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

ProQinase™ TIE2

Product No.: 0861-0000-1

GST-TIE2 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGG	240
241	PLAMLQLKRA	NVQRMAQAF	QNVREPAVQ	FNSGTLALNR	KVKNNPDPTI	YPVLDWNDIK	300
301	FQDVIGEGNF	GQVLKARIKK	DGLRMDAAIK	RMKEYASKDD	HRDFAGELEV	LCKLGHHPNI	360
361	INLLGACEHR	GYYLAIEYA	PHGNLLDFLR	KSRVLETDPA	FAIANSTAST	LSSQQLLHFA	420
421	ADVARGMDYL	SQKQFIHRDL	AARNILVGEN	YVAKIADFGL	SRGQEVYVKK	TMGRLPVRWM	480
481	AIESLNYSVY	TTNSDVWSYG	VLLWEIVSLG	GTPYCGMTCA	ELYEKLPGY	RLEKPLNCDD	540
541	EVYDLMRQCW	REKPYERPFS	AQILVSLNRM	LEERKTYVNT	TLYEKFTYAG	IDCSAEAEA	600

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: TIE2 fragment

TIE2 wt ¹ Amino Acid Sequence							
1	MDSLASLVLC	GVSLLLSGTV	EGAMDILILIN	SLPLVSDAET	SLTCIASGWR	PHEPITIGRD	60
61	FEALMNQHOD	PLEVTQDVTR	EWAKKVWKR	EKASKINGAY	FCEGRVRGEA	IRIRTMKMRQ	120
121	QASFLPATLT	MTVDKGDNVN	ISFKKVLKE	EDAVIYKNGS	FIHSVPRHEV	PDILEVHLPH	180
181	AQPQDAGVYS	ARYIGGNLFT	SAFTRLIVRR	CEAQKWGPEC	NHLCTACMNN	GVCHEDTGEC	240
241	ICPPGFMGRT	CEKACELHTF	GRTCKERCSC	QEGCKSYVFC	LPDPYGCSCA	TGWKGLQCNE	300
301	ACHPGFYGPD	CKLRCSNNG	EMCDRFQGL	CSPGWQGLQC	EREGIPRMTP	KIVDLPDHIE	360
361	VNSGKFNPIC	KASGWPLPTN	EEMTLVKPDG	TVLHPKDFNH	TDHFSVAIFT	IHRILPPDSG	420
421	VWVCSVNTVA	GMVEKPFNIS	VKVLPKPLNA	PNVIDTGHNF	AVINISSEPY	FGDGPISKK	480
481	LLYKPVNHYE	AWQHIQVTNE	IVTLNLYEPR	TEYELCVQLV	RRGEGGEGHP	GPVRRFTTAS	540
541	IGLPPPRGLN	LLPKSQTTLN	LTWQPIFPSS	EDDFYVEVER	RSVQKSDQQN	IKVPGNLTSV	600
600	LLNNLHPREQ	YVVRARVNTK	AQGEWSEDLT	AWTLSDILPP	QPENIKISNI	THSSAVISWT	660
661	ILDGYSISSI	TIRYKVQGN	EDQHVDVKIK	NATIIQYQLK	GLEPETAYQV	DIFAENNIGS	720
721	SNPAFSHEL	TLPEAQAPAD	LGGGKMLLIA	ILGSAGMTCL	TVLLAFLIIL	QLKRANVQRR	780
781	MAQAFQNVRE	EPVQFNSGT	LALNRKVKN	PDPTIYPVLD	WNDIKFQDVI	GEGNFGQVLK	840
841	ARIKDGRLM	DAAIKRMKEY	ASKDDHRDFA	GELEVLCKLG	HHPNIINLLG	ACEHRGYLYL	900
901	AIEYAPHGNL	LDFLRKSRVL	ETDPAFAIAN	STASTLSSQQ	LLHFAADVAR	GMDYLSQKQF	960
961	IHRDLAARNI	LVGENYVAKI	ADFGLSRGQE	VYVKKTMGRL	PVRWMAIESL	NYSVYTTNSD	1020
1021	VWSYGVLLWE	IVSLGGTPYC	GMTCAELYEK	LPQGYRLEKP	LNCDDDEVYDL	MRQCWREKPY	1080
1081	ERPSFAQILV	SLNRMLEERK	TYVNTTLYEK	FTYAGIDCSA	EEAA		1140

blue: TIE2 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_000450.1