

TIE2 Y1108F

TEK receptor tyrosine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: TEK

Synonyms: VMCM, CD202b, TIE-2, VMCM1

Product No.: 1088-0000-1

Lot: 003

Description: Human TIE2, C-terminal fragment, amino acids Q₇₇₁-A₁₁₂₄ (as in [NCBI/Protein](#) entry NP_000450.2) with a Y1108F mutation, N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: TIE2 Y1108F Lot 001, was confirmed as TIE2 with a Y1108F mutation by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 68,963 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 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.428 µg/µl

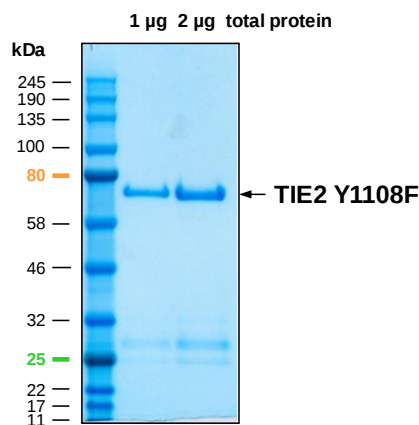
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

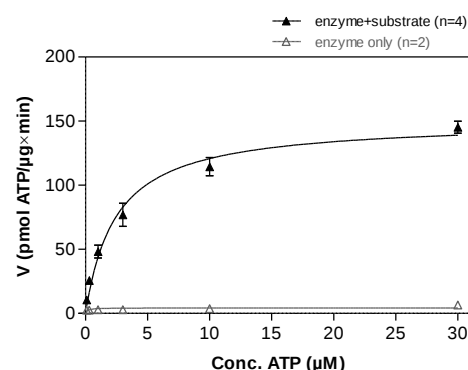
Specific kinase activity (P_i transfer): 150 pmol/µg × min

ATP-K_M: 2.4 µM

TIE2 Y1108F Lot 003: Coomassie stain



TIE2 Y1108F Lot 003: 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: Poly(Ala,Glu,Lys,Tyr)_{6:2:5:1} 40 µg/ml
- Kinase: 1 µg/ml
- Filter binding assay
- MSFC membrane (Millipore)

Additional assay technology:

TIE2 Y1108F Lot 003 was also successfully tested by ProQinase 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- TIE2 Y1108F Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGWYKI	KGLVQPTRLL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGG	240
241	PLAMLQLKRA	NVQRRMAQAF	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	EVYDLMRQW	REKPYERPFS	AQILVSLNRM	LEERKTYVNT	TLFEKFTYAG	IDCSAEAEA	600

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: TIE2 fragment boxed: Y1108F

TIE2 wt ¹ Amino Acid Sequence							
1	MDSLASLVLC	GVSLLLSGTV	EGAMDILILIN	SLPLVSDAET	SLTCIASGWR	PHEPITIGRD	60
61	FEALMNQHQD	PLEVTQDVTR	EWAKKVWKR	EKASKINGAY	FCEGRVRGEA	IRIRTMKMRQ	120
121	QASFLPATLT	MTVDKGDNVN	ISFKKVLIKE	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	KIVDLPDHE	360
361	VNSGKFNPIK	KASGWPLPTN	EEMTLVKPDG	TVLHPKDFNH	TDHFSVAIFT	IHRILPPDSG	420
421	VWVCSVNTVA	GMVEKPFNIS	VKVLPKPLNA	PNVIDTGHNF	AVINISSEPY	FGDGPIKSKK	480
481	LLYKPVNHYE	AWQHIQVTNE	IVTLNLYEPR	TEYELCVQLV	RRGEGGEGHP	GPVRRFTTAS	540
541	IGLPPPRGLN	LLPKSQTTLN	LTWQPIFPSS	EDDFYVEVER	RSVQKSDQQN	IKVPGNLTSV	600
600	LLNNLHPREQ	YVVRARVNTK	AQGEWSEDLT	AWTSLDILPP	QPENIKISNI	THSSAVISWT	660
661	ILDGYSISSI	TIRYKVQGN	EDQHVDVKIK	NATITQYQLK	GLEPETAYQV	DIFAENNIGS	720
721	SNPAFSHEL	TLPEAQAPAD	LGGGKMLLIA	ILGSAGMTCL	TVLLAFLIIL	QLKRANVQRR	780
781	MAQAFQNVRE	EPAVQFNST	LALNRKVKN	PDPTIYPVLD	WNDIKFQDVI	GEGNFGQVLK	840
841	ARIKDGRLM	DAAIKRMKEY	ASKDDHRDFA	GELEVLCKLG	HHPNIIINLLG	ACEHRGYLYL	900
901	AIEYAPHGNL	LDFLRKSRVL	ETDPAFAIAN	STASTLSSQQ	LLHFAADVAR	GMDYLSQKQF	960
961	IHRDLAARNI	LVGENYVAKI	ADFGLSRGQE	VYVKKTMGRL	PVRWMAIESI	NYSVYTTNSD	1020
1021	VWSYGVLLWE	IVSLGGTPYC	GMTCAELYEK	LPQGYRLEKP	LNCDDDEVYDL	MRQCWREKPY	1080
1081	ERPSFAQILV	SLNRMLEERK	TYVNTTLYEK	FTYAGIDCSA	EEAA		1140

blue: TIE2 sequence expressed in recombinant protein Red: variant in recombinant protein

¹NCBI/Protein accession number NP_000450.2

Recombinant Proteins

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