

ProQinase™ MERTK

MER proto-oncogene, tyrosine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: MERTK

Synonyms: MER; MER-PEN; RP38; c-mer; mer

Product No.: 0770-0000-1

Lot: 007

Description: Human MERTK, C-terminal fragment, amino acids R528-M999 (as in [NCBI/Protein](#) entry NP_006334.2), N-terminal GST-HIS6 fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: MERTK Lot 011, was confirmed as MERTK by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 81,491 Da

Expression host: Sf9 insect cells/E.coli

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

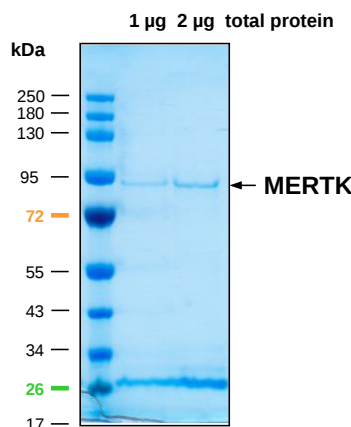
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10 µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.136 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

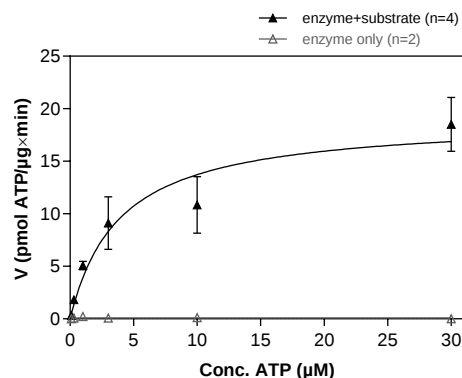
Biochemical Parameters:

Specific kinase activity (P_i transfer): 19 pmol/µg x min
ATP-K_M: 3.9 µM

MERTK Lot 011: Coomassie stain



MERTK Lot 011: 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: TRK-C derived peptide 10 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
MSIP membrane (Millipore)

Additional assay technology:

MERTK Lot 011 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.

MERTK

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GST-MERTK Recombinant Fusion Protein Amino Acid Sequence

1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	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	PLAMLRVQET	KFGNAFTEED	SELVVNYIAK	KSFCRRAIEL	TLHSLGVSEE	LQNKLEDVVI	300
301	DRNLLILGKI	LGEGEFGSVM	EGNLKQEDGT	SLKVAVKTMK	LDNSSQREIE	EFLSEAACMK	360
361	DFSHPNVIRL	LGVCIESSQ	GIPKPMVILP	FMKYGDLHTY	LLYSRLETGP	KHIPLQTLK	420
421	FMVDIALGME	YLSNRNFLHR	DLAARNCLMR	DDMTVCVADF	GLSKKIYSGD	YYRQGRIAKM	480
481	PVKWIAIESL	ADRVYTSKSD	VWAFGVMTWE	IATRGMTYPY	GVQNHMYDY	LLHGHRLKQP	540
541	EDCLDELYEI	MYSCWRTDPL	DRPTFSVLR	QLEKLLESPL	DVRNQADVIV	VNTQLLESSE	600
600	GLAQGSTLAP	LDLNIDPDSI	IASCTPRAAI	SVVTAEVHDS	KPHEGRYILN	GGSEEWEDLT	660
661	SAPSAAVTAE	KNSVLPGERL	VRNGVSWSHS	SMLPLGSSLP	DELLFADDSS	EGSEVLM	720

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

MERTK wt¹ Amino Acid Sequence

1	MGPAPLPLLL	GLFLPALWRR	AITEAREEAK	PYPLFPGPFP	GSLQTDHTPL	LSLPHASGYQ	60
61	PALMFSPQTQ	GRPHTGNVAI	PQVTSVESKP	LPPLAFKHTV	GHIILSEHKG	VKFNCISIVP	120
121	NIYQDTTISW	WKDGKELLGA	HHAITQFYFD	DEVTAIIASF	SITSVQRSDN	GSYICKMKIN	180
181	NEEIVSDPIY	IEVQGLPHFT	KQPESMNVT	NTAFNLTCQA	VGPPEPVNIF	WVQNSSRVNE	240
241	QPEKSPSVLT	VPGLTEMAVF	SCEAHNDKGL	TVSKGVQINI	KAIPSPPTFV	SIRNSTAHSI	300
301	LISWVPGFDG	YSPFRNCISQ	VKEADPLSNG	SVMIFNTSAL	PHLYQIKQLQ	ALANYSIGVS	360
361	CMNEIGWSAV	SPWILASTTE	GAPSVAPLNV	TVFLNESSDN	VDIRWMKPPT	KQQDGELVGY	420
421	RISHVWQSAG	ISKELLEEVG	QNGSRARISV	QVHNATCTVR	IAAVTRGGVG	PFSDPVKIFI	480
481	PAHGWDYAP	SSTPAPGNAD	PVLIIIFGCFC	GFILIGLILY	ISLAIRKRVQ	ETKFGNAFTE	540
541	EDSELVVNYI	AKKSFCRRAI	ELTLHSLGVS	EELQNKLEDV	VIDRNLILG	KILGEFGS	600
600	VMENGLKQED	GTSLKVAVKT	MKLDNSSQRE	IEEFLSEAAC	MKDFSHPNVI	RLLGVCIEMS	660
661	SQGIPKPMVI	LPFMKYGDLH	TYLLYSRLET	GPKHIPLQTL	LKFMVDIALG	MEYLSNRNFL	720
721	HRDLAARNCM	LRDDMTVCVA	DFGLSKKIYS	GDYYRQGRIA	KMPVKWIAIE	SLADRVYTSK	780
781	SDVWAFGVMT	WEIATRGMT	YPGVQNHMY	DYLLHGHRLK	QPEDCLDELY	EIMYSCWRTD	840
841	PLDRPTFSVL	RLQLEKLLES	LPDVRNQADV	IYVNTQLLES	SEGLAQGSTL	APLDLNIDPD	900
901	SIIASCTPRA	AISVVTAEVH	DSKPHEGRYI	LNGGSEEWED	LTSAPSAAVT	AEKNSVLPGE	960
961	RLVRNGVSW	HSSMLPLGSS	LPDELLFADD	SSEGSEVLM			1020

blue: MERTK sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_006334.2