

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 007, was confirmed as MERTK by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 81,491 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: 0.061 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

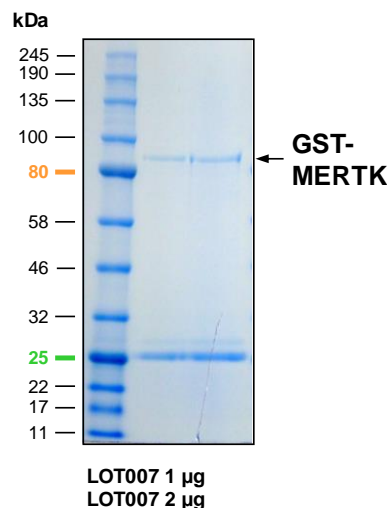
Biochemical Parameters:

Specific kinase activity (P_i transfer): 27 pmol/µg × min
ATP-K_M: 2.4 µM

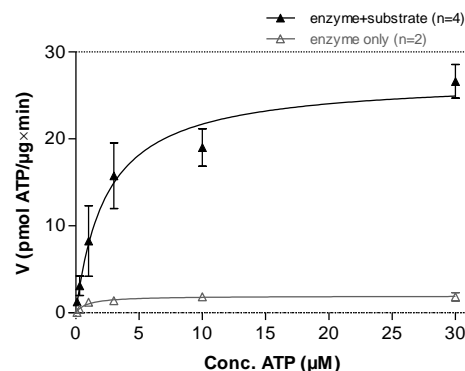
Additional assay technology:

MERTK Lot 007 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 Lot 007: Coomassie stain



MERTK Lot 007: 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, 80 µg/ml
Kinase: 1 µg/ml
- Filter binding assay
MSPH membrane (Millipore)

ProQinase™ MERTK

Product No.: 0770-0000-1

GST-MERTK Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	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	DLAARNCLR	DDMTVCVADF	GLSKKIYSGD	YRQGRIAKM	480
481	PVKWIAIESL	ADRVYTSKSD	VWAFGVTMWE	IATRGMTPYP	GVQNHMYDY	LLHGHRKQP	540
541	EDCLDELYEI	MYSCWRTPD	DRPTFSVLR	QLEKLESLEP	DVRNQADVY	VNTQLLESE	600
600	GLAQGSTLAP	LDLNIDPDSI	IASCTPRAAI	SVVTAEVHDS	KPHEGRYILN	GGSEEWEDLT	660
661	SAPSAAVTAE	KNSVLPGERL	VRNGVSWSHS	SMLPLGSSLP	DELLFADSS	EGSEVLM	720

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

MERTK wt ¹ Amino Acid Sequence							
1	MGPAPLPLLL	GLFLPALWRR	AITEAREEAK	PYPLFPGPFP	GSLQTDHTPL	LSLPHASGYQ	60
61	PALMFSPPTQP	GRPHTGNVAI	PQVTSVESKP	LPPLAFKHTV	GHIILSEHKG	VKFNCSISVP	120
121	NIYQDTTISW	WKDGKELLGA	HHAITQFYPD	DEVTAIASF	SITSVQRSDN	GSYICKMKIN	180
181	NEEIVSDPIY	IEVQGLPHFT	KQPESMNVT	NTAFNLTCQA	VGPPEPVNIF	WVQNSSRVNE	240
241	QPEKSPSVLT	VPGLTEMAVF	SCEAHNDKGL	TVSKGVQINI	KAIPSPPEV	SIRNSTAHSI	300
301	LISWVPGFDG	YSPFRNCISQ	VKEADPLSNG	SVMIFNTSAL	PHLYQIKQLQ	ALANYSIGVS	360
361	CMNEIGWSAV	SPWILASTE	GAPSVAPLNV	TVFLNESSDN	VDIRWMKPPT	KQQDGELVGY	420
421	RISHVWQSAG	ISKELLEEVG	QNGSRARISV	QVHNATCTVR	IAAVTRGGVG	PFSDPVKIFI	480
481	PAHGWDYAP	SSTPAPGNAD	PVLIIIFGFC	GFILIGLILY	ISLAIRKRVQ	ETKFGNAFTE	540
541	EDSELVNYI	AKKSFERRAI	ELTLHSLGVS	EELQNKLEDV	VIDRNLLIIG	KILGEGEFGS	600
600	VMEGNLKQED	GTSLKVAVKT	MKLDNSSQRE	IEEFLSEAC	MKDFSHPNVI	RLLGVCIEMS	660
661	SQGIPKPMVI	LPFMKYGLH	TYLLYSRLET	GPKHIPLQTL	LKFMVDIALG	MEYLSNRNFL	720
721	HRDLAARNCM	LRDDMTVCVA	DFGLSKKIYS	GDYYRQGRIA	KMPVKWIAIE	SLADRVYTSK	780
781	SDVWAFGVTM	WEIATRGMTP	YPGVQNHMY	DYLLHGHRK	QPEDCLDELY	EIMYSCWRTP	840
841	PLDRPTFSVL	RLQLEKLES	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