

MINK1

misshapen like kinase 1

Recombinant Human Active Protein Kinase

HGNC Symbol: MINK1

Synonyms: MINK, YSK2, MAP4K6, ZC3, B55

Product No.: 0698-0000-1

Lot: 002

Description: Human Kinase, C/N/internal fragment, amino acids M₁-E₃₂₀ (as in [NCBI/Protein](#) entry NP_056531.1), N-terminal GST-HIS₆ fusion protein with a Thrombin and 3C cleavage site, expressed in Sf9 insect cells

Product identity: MINK1 Lot 002, was confirmed as MINK1 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 67,100 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: 0.297 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

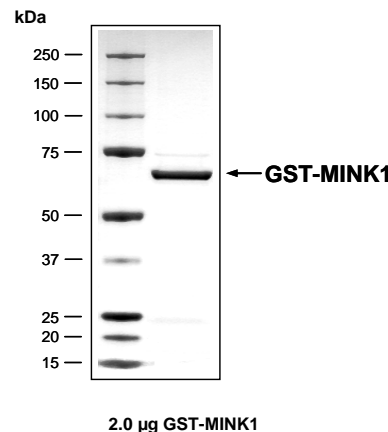
Biochemical Parameters:

Specific kinase activity (P_i transfer): 95 pmol/µg × min
ATP-K_M: 0.76 µM

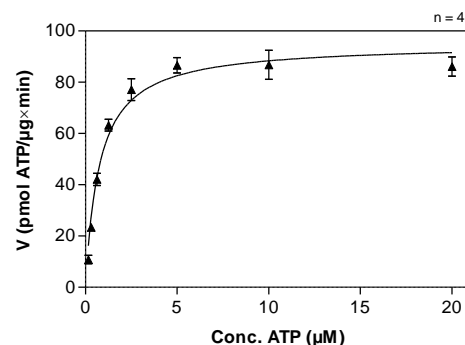
Additional assay technology:

MINK1 Lot 002 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

MINK1 Lot 002: Coomassie stain



MINK1 Lot 002: 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: Casein 50 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
- MSFC membrane (Millipore)

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GST-MINK1 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARDSLEV	LFQGPLAMGD	PAPARSLDDI	DLSALRDPAG	IFELVEVGN	300
301	GTYGQVYKGR	HVKTGQLAAI	KVMDVTEDEE	EEIKQEINML	KKYSHHRNIA	TYYGAFIKKS	360
361	PPGNDDQLWL	VMEFCGAGSV	TDLVKNTKGN	ALKEDCIAYI	CREILRGLAH	LHAHKVIHRD	420
421	IKQONVLLTE	NAEVKLVDFG	VSAQLDRTVG	RRNTFIGTPY	WMAPEVIACD	ENPDATYDYR	480
481	SDIWSLGITA	IEMAEGAPPL	CDMHPMRALF	LIPRNP PRL	KSKKWSK KFI	DFIDTCLIKT	540
541	YLSRP PTEQL	LKFPFIRDQP	TERQVRIQLK	DHIDRSRKKR	GEKEETE		600

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site Green: 3C cleavage site blue: MINK1 fragment

MINK1 wt ¹ Amino Acid Sequence							
1	MGDPAPARSL	DDIDLSALRD	PAGIFELVEV	VNGNGTYGQVY	KGRHVKTGQL	AAIKVMDVTE	60
61	DEEEEIKQEI	NMLKKYSHHR	NIATYYGAFI	KKSPPGNDDQ	LWLVMEFCGA	GSVTDLVKNT	120
121	KGNALKEDCI	AYICREILRG	LAHLHAHKVI	HRDIKQONVL	LTENAIEVKLV	DFGVSAQLDR	180
181	TVGRRNTFIG	TPYWMapevi	ACDENPDATY	DYRSDIWSLG	ITAIEMAEGA	PPLCDMHPMR	240
241	ALFLIPRNP	PRLKSKKWSK	KFIDFIDTCL	IKTYLSRPPT	EQLLKFPFIR	DQPTERQVRI	300
301	QLKDHDIDRSR	KKRGEKEETE	YEYSGSEED	DSHGEEGEP	SIMNVPGEST	LRREFLRLQQ	360
361	ENKSNSEALK	QQQQLQQQQ	RDPEAHIKHL	LHQRRRIEE	QKEERRVVEE	QRRREREQRK	420
421	LQEKEQQRRL	EDMQALRREE	ERRQAEREQE	YKRKQLEEQR	QSERLQRQLQ	QEHAYLKS LQ	480
481	QQQQQQQLQK	QQQQQLLP GD	RKPLYHYGRG	MNPADKP AWA	REVEERTRMN	KQQNSPLAKS	540
541	KPGSTGPEPP	IPQASPGPPG	PLSQTPPMQR	PVEPQEGPHK	SLVAHRVPLK	PYAAPVPRSQ	600
600	SLQDQPTRNL	AAFPASHDPD	PAIPAPTATP	SARGAVIRQN	SDPTSEGGPF	SPNPPAWVRP	660
661	DNEAPPKVPQ	RTSSIATALN	TSGAGGSRPA	QAVRASNPDL	RRSDPGWERS	DSVLPASHGH	720
721	LPQAGSLERN	RVGVSSKPDS	SPVLSPGNKA	KPDDHRSRPG	RPADFVLLKE	RTLDEAPRPP	780
781	KKAMDYSSSS	EEVESSEDE	EEGEGGPAEG	SRDTPGGRSD	GDTDSVSTMV	VHDVEEITGT	840
841	QPPYGGGTMV	VQRTPEEERN	LLHADSNGYT	NLPDVVQPSH	SPTENSKGQS	PPSKDGS GDY	900
901	QSRGLVKAPG	KSSFTMFVDL	GIYQPGGSGD	SIPITALVGG	EGTRLDQLQY	DVRKGSVNV	960
961	NPTNTRAHSE	TPEIRKYKRR	FNSEILCAAL	WGVNLLVGTE	NGLMLLDRSG	QGVYGLIGR	1020
1021	RRFQQMDVLE	GLNLLITISG	KRNKLRVYYL	SWLRNKILHN	DPEVEKKQGW	TTVGDMEGCG	1080
1081	HYRVVKYERI	KFLVIALKSS	VEVYAWAPKP	YHKFMAFKSF	ADLPHRPLL	DLTVEEGQRL	1140
1141	KVIYGSSAGF	HAVDVDSGNS	YDIYIPVHIQ	SQITPHAIIF	LPNTDGM EML	LCYEDEGVYV	1200
1201	NTYGRIIKDV	VLQWGE MPTS	VAYICSNQIM	GWGEKAIEIR	SVETGHL DGV	FMHKRAQRLK	1260
1261	FLCERNDKVE	FASVRSGGSS	QVYFMTLNRN	CIMNW			1320

blue: MINK1 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_056531.1

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