

ProQinase™ EML4 ALK

Echinoderm microtubule-associated protein-like 4 anaplastic lymphoma kinase fusionprotein

Recombinant Human Active Protein Kinase

HGNC Symbol: n/a

Synonyms: n/a

Product No.: 1246-0000-1

Lot: 003

Description: Human pathological fusionprotein EML4 ALK, full length, amino acids M₁-P₁₀₅₉ (as in [NCBI/Protein](#) entry BAF73611.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Product identity: EML4 ALK Lot 003, was confirmed as EML4 ALK by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein}: 145.447 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: 0.095 µg/µl

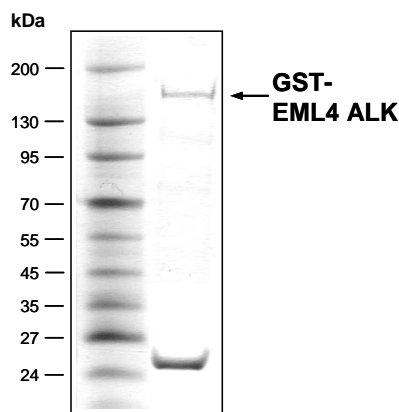
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

Specific kinase activity (P_i transfer): 11 pmol/µg × min

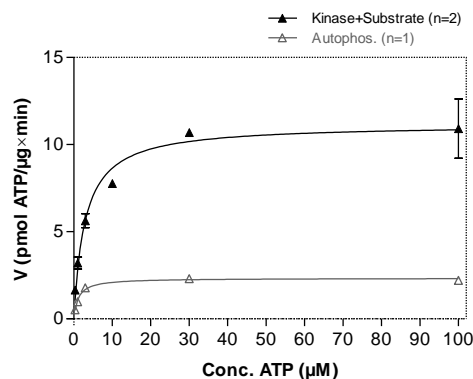
ATP-K_M: 2.9 µM

EML4 ALK Lot 003: Coomassie stain



2.0 µg GST-EML4 ALK

EML4 ALK 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: TRK-C derived peptide
Kinase: 2 µg/ml
- Filter binding assay
MSPH membrane (Millipore)

Additional assay technology:

EML4 ALK Lot 003 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

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GST-EML4 ALK 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	PMG HHHHHG	RDS LEVLFCG	240
241	PLAMDG FAGS	LDD SISAAS T	SDVQDR L SAL	ESRVQQ E DE	ITVLKA ALAD	VLRRLA ISED	300
301	HVASVK SVS	SKGQPS PRAV	IPM SCITNGS	GANR KPSHTS	AVSI AGKETL	SSAAK SGTEK	360
361	KKEK PQ QRE	KKEE SHSNDQ	SPQI RASPS	QPSS QPLQIH	RQTP ESKNAT	PTKSI KRPS	420
421	AEKSH NSWEN	SDDSR NKLSK	IPST PKLIPK	VTKT ADKHKD	VIIN QEGEYI	KMFMR GRPIT	480
481	MFIP SDVDNY	DDIR TELPPE	KLKLE WAYGY	RGKDC RANVY	LLPT GEIVYF	IASVV VLFN	540
541	EERT QRHYLG	HTDC VKCLAI	HPDK KIRIATG	QIAG VDKDGR	PLQP HVRVWD	SVTL STLQII	600
601	GLGT FERGVG	CLDF SKADSG	VHLC VIDDSN	EHML TVWDWQ	RKAK GAEIKT	TNEV LVAVEF	660
661	HPTD ANTIIIT	CGKSH IFFWT	WSGN SLTRKQ	GIFG KYEKPK	FVQC LAF LGN	GDVLT GDSSG	720
721	VMLI WSKTTV	EPTP GGKPKV	YRRK HQELQA	MQME LQSP EY	KLSK LRTSTI	MTDYN PNYCF	780
781	AGKT SSISDL	KEVPR KNITL	IRGL HGAFG	EVYEG QVSGM	PNDP SPLQVA	VKTL PEVCSE	840
841	QDEL DFLMEA	LIISK FNHQN	IVRC IGVSLQ	SLPR FILLEL	MAGG DLKSFL	RETR PRPSQ	900
901	SSLA MLDLLH	VARD IACGCQ	YLEEN HFIHR	DIAAR NCLLT	CPGP GRVAKI	GDFG MARDIY	960
961	RASY YRKGGC	AML PVKWMP	EAFME GIFTS	KTDT WSFGVL	LWEI FSLYM	PYPS KSNQEV	1020
1021	LEFV TSGGRM	DPPK NCPGPV	YRIM TQCWQH	QPED RPNFAI	ILER IEYCTQ	DPDV INTALP	1080
1081	I EY GPLVEEE	EKVP VRPKDP	EGVP LLVSVQ	QAKR EERSP	AAPP PLPTS	SGKA AKKPTA	1140
1141	AEV SVRVP	PAVE GGHVNM	AFS QSNPPSE	LHRV HGSRNK	PTSL WNPTYG	SWFTE KPTTK	1200
1201	NNPI AKKEPH	ERGN LGLG	CTVP PNVATG	RLPG ASLLE	PSSL TANMKE	VPLF RRLRHF	1260
1261	CGNV NYGYQQ	QGLP LEAATA	PGAG HYEDTI	LKSK NSMNQ	GP		1320

1-218: GST **Red**: HIS6-tag **Green**: 3C cleavage site **blue**: EML4 ALK

EML4 ALK wt ¹ Amino Acid Sequence							
1	MDG FAGSLDD	SISA ASTSDV	QDR LSALESR	VQQ EDEITV	LKA ALADVLR	RLA ISEDHVA	60
61	SVK SVSSKG	QPS PRAVIM	SCIT NGSGAN	RKPS HTSAVS	IAGK ETLSSA	AKS GTEKKKE	120
121	KPO GQREKKE	ESH SNDQSPQ	IRAS PSPQPS	SOPL QIHRQT	PESK NATPTK	SIKR PSPA EK	180
181	SHN SWENSDD	SRNK LSKIP	TPKL IPKVTK	TADK HKDVII	NQEG EYIKMF	MRGR PITMFI	240
241	PSD VVDNYDDI	RTEL PPEKLEK	LEWA GYR GK	DCRA NVYLLP	TGEI VFYFAS	VVVL FNYYEER	300
301	TQR HYLGH TD	CVK CLAIHPD	KIRI ATGQIA	GVDK DGRPLQ	PHVR VWDSVT	LSTL QIIGLG	360
361	TFER YLGCLD	FSKAD SGVHL	CVID DSNEHM	LTVW DWQKKA	KGAE IKTNE	VVLAV EFHPT	420
421	DANTI ITCGK	SHIFF WTWSG	NSL TRKQIF	GKYE KPKFVQ	CLAF LNGNDV	LTGD SGGVML	480
481	IWSK TTVEPT	PGKG PKVYRR	KHQE LQAMQM	ELQS PEYKLS	KLRT STIMTD	YNPN YCFAGK	540
541	TSSIS DLKEV	PRKN ITLIRG	LGHG AFGEVY	EGQV SGMPND	PSPL QVAVKT	LPEV CSEQDE	600
601	LDFL MEALII	SKFN HQNI VR	CIGV SLSQSLP	RFIL LELMAG	GDLK SFLRET	RPRP SQPSL	660
661	AML DLLHVAR	DIAC GCQYLE	ENHF IHRDIA	ARNC LLT CPG	PGRV AKIGDF	GMAR DIYRAS	720
721	YRK GGCAML	PVKW MPPEAF	MEGI FTSKTD	TWSF GVLLWE	IFSL GYMPYP	SKSN QEVLEF	780
781	VTSG GRMDPP	KNCP GPVYRI	MTQC WQHPE	DRPN FAILLE	RIEY CTQDPD	VINTAL PIEY	840
841	GPLV EEEEKV	PVRP KDPEGV	PPLL VSVQAK	REEE RSPAAP	PPLP TTSSGK	AAK PATAAEV	900
901	SVR VPRGPAV	EGGH VNMAFS	QSNP PSELHR	VHGS RNKPTS	LWN PTYGSWF	TEK PTKNNP	960
961	IAKK EPHERG	NLGL EGSCTV	PPNV ATGRLP	GASL LLEPSS	LTAN MKEVPL	FRLR HFP CGN	1020
1021	VNYG YQQQGL	PLEA ATAPGA	GHYE DITLKS	KNSM NQPGP			1080

bold letters: expressed part of EML4 (**blue**) and ALK (**green**)

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/Protein/BAF73611.1) accession number BAF73611.1

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