

ProQinase™ ALK wt

ALK receptor tyrosine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: ALK

Synonyms: CD246, NBLST3

Product No.: 1176-0000-1

Lot: 011

Description: Human ALK wt, internal fragment, amino acids L₁₀₆₆-S₁₄₃₇ (as in [NCBI/Protein](#) entry NP_004295.2), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

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

Theoretical MW_{Fusion Protein}: 70,459 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: 0.320 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

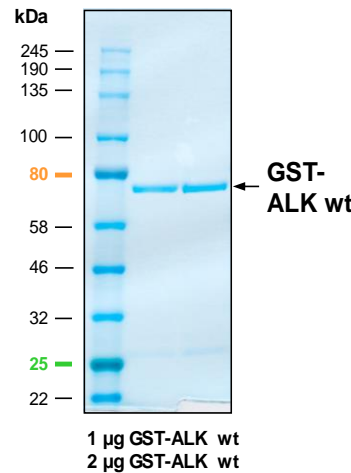
Biochemical Parameters:

Specific kinase activity (P_i transfer): 37 pmol/µg × min
ATP-K_M: 2.3 µM

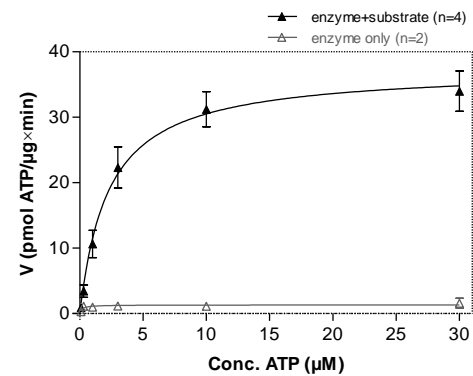
Additional assay technology:

ALK wt 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

ALK wt Lot 011: Coomassie stain



ALK wt Lot 011: 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: TRK-C derived peptide 40 µg/ml
 - Kinase: 1 µg/ml
- Filter binding assay
MSPH membrane (Millipore)

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GST-ALK wt 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	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFCG	240
241	PLAMVLQAMQ	MELQSPYKYL	SKLRTSTIMT	DYNPNYCFAG	KTSSISDLKE	VPRKNITLIR	300
301	GLGHGAFGEV	YEQVSGMPN	DPSPLQVAVK	TLPEVCSEQD	ELDFLMEALI	ISKFNHQIV	360
361	RCIGVSLQSL	PRFILLELMA	GGDLKSFLRE	TRPRPSQSS	LAMLDLLHVA	RDIACGCQYL	420
421	EENHFHHRDI	AARNCLLTC	GPRVAKIGD	FGMARDIYRA	SYRKGCCAM	LPVKWMPPEA	480
481	FMEGIFTSKT	DTWSFGVLLW	EIFSLGYMPY	PSKSNQEVLE	FVTSGGRMDP	PKNCPGPVYR	540
541	IMTQCWQHQP	EDRPNFAILL	ERIEYCTQDP	DVINTALPIE	YGPLVEEEEK	VPVRPKDPEG	600
600	VPPLLVSQQA	KREEERS					660

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

ALK wt ¹ Amino Acid Sequence							
1	MGAIGLLWLL	PLLSTAAVG	SGMGTGQRAG	SPAAGPPLQP	REPLSYSRLQ	RKSLAVDFVV	60
61	PSLFRVYARD	LLLPPSSSEL	KAGRPEARGS	LALDCAPLLR	LLGPAPGVSW	TAGSPAPAEA	120
121	RTLSRVLKGK	SVRKLRRAKQ	LVLELGEEAI	LEGCVGPPGE	AAVGLLQFNL	SELSFWWIRQ	180
181	GEGRLRIRLM	PEKKASEVGR	EGRLSAAIRA	SQPRLLFQIF	GTGHSSLESP	TNMPSPSPDY	240
241	FTWNLTWIMK	DSFPFLSHRS	RYGLECSFDF	PCELEYSPL	HDLRNQSWSW	RRIPSEEASQ	300
301	MDLLDGPAGE	RSKEMPRGSF	LLLNTSADSK	HTILSPWMS	SSEHCTLAVS	VHRHLQPSGR	360
361	YIAQLLPHNE	AAREIILLMPT	PGKHGWTVLQ	GRIGRPDNP	RVALEYISSG	NRSLSAVDF	420
421	ALKNCSEGTS	PGSKMALQSS	FTCWNGTVLQ	LGQACDFHQD	CAQGEDESQM	CRKLPVGFYC	480
481	NFEDGFCGWT	QGTLSPTTPQ	WQVRTLKDAR	FQDHQDHALL	LSTTDVPASE	SATVTSATFP	540
541	APIKSSPCEL	RMSWLIRGVL	RGNVSLVLE	NKTGKEQGRM	VWHVAAYEGL	SLWQWMVLP	600
600	LDVSDRFLWQ	MVAWWGQGS	AIVAFDNISI	SLDCYLTISG	EDKILQNTAP	KSRNLFERNP	660
661	NKELKPGENS	PRQTPIFDPT	VHWFLLTTCGA	SGPHGPTQAQ	CNNAYQNSNL	SVEVGSEGPL	720
721	KGIQIWKVPA	TDTYSISGYG	AAGGKGGKNT	MMRSHGVSVL	GIFNLEKDDM	LYILVGGQGE	780
781	DACPSTNQLI	QKVCIGENNV	IIEEIRVNRS	VHEWAGGGGG	GGGATYVFKM	KDGVVPLII	840
841	AAGGGGRAYG	AKTDTFHPER	LENNSSVLGL	NGNSGAAGGG	GGWNDNTSLL	WAGKSLQEGA	900
901	TGGHSCPQAM	KKWGWETRGG	FGGGGGGCSS	GGGGGGYIGG	NAASNNDPEM	DGEDGVSFIS	960
961	PLGILYTPAL	KVMEGHGEVN	IKHYLNCSHC	EVDECHMDPE	SHKVICFCDH	GTVLAEDGVS	1020
1021	CIVSPTPEPH	LPLSLILSVV	TSALVAALVL	AFSGIMIVYR	RKHQELQAMQ	MELQSPYKYL	1080
1081	SKLRTSTIMT	DYNPNYCFAG	KTSSISDLKE	VPRKNITLIR	GLGHGAFGEV	YEQVSGMPN	1140
1141	DPSPLQVAVK	TLPEVCSEQD	ELDFLMEALI	ISKFNHQIV	RCIGVSLQSL	PRFILLELMA	1200
1201	GGDLKSFLRE	TRPRPSQSS	LAMLDLLHVA	RDIACGCQYL	EENHFHHRDI	AARNCLLTC	1260
1261	GPRVAKIGD	FGMARDIYRA	SYRKGCCAM	LPVKWMPPEA	FMEGIFTSKT	DTWSFGVLLW	1320
1321	EIFSLGYMPY	PSKSNQEVLE	FVTSGGRMDP	PKNCPGPVYR	IMTQCWQHQP	EDRPNFAILL	1380
1381	ERIEYCTQDP	DVINTALPIE	YGPLVEEEEK	VPVRPKDPEG	VPPLLVSQQA	KREEERS	1440
1441	PPPLPTTSSG	KAACKPTAAE	ISVRVPRGPA	VEGGHVNMAF	SQSNPPSELH	KVHGSRNKPT	1500
1501	SLWNPTYGSW	FTEKPTKKN	PIAKKEPHDR	GNLGLEGSCT	VPPNVATGRL	PGASLLLEPS	1560
1561	SLTANMKEVP	LFRLRHFFPCG	NVNYGYQQQG	LPLEAATAPG	AGHYEDTILK	SKNSMNQPGP	1620

blue: ALK sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_004295.2