

## ALK C1156Y (GST-HIS-tag)

ALK receptor tyrosine kinase

Recombinant Human Active Protein Kinase

HGNC Symbol: ALK

Synonyms: CD246

Product No.: 1177-0000-1

Lot: 001

**Description:** Human ALK C1156Y, internal fragment, amino acids L<sub>1066</sub>-S<sub>1437</sub> (as in [NCBI/Protein](#) entry NP\_004295.2), C1156Y mutation, N-terminal GST-HIS<sub>6</sub> fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

**Product identity:** ALK C1156Y Lot 001, was confirmed as ALK by mass spectroscopy LC-ESI-MS/MS

**Theoretical MW<sub>Fusion Protein</sub>:** 70,519 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:** 0.325 µg/µl

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

### Biochemical Parameters:

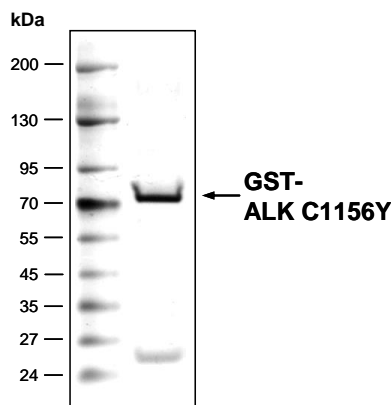
Specific kinase activity (P<sub>i</sub> transfer): 168 pmol/µg × min

ATP-K<sub>M</sub>: 3.6 µM

### Additional assay technology:

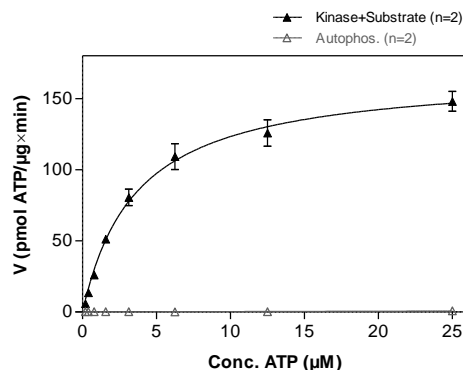
ALK C1156Y Lot 001 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega. ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

### ALK C1156Y Lot 001: Coomassie stain



2.0 µg GST-ALK C1156Y

### ALK C1156Y Lot 001: Determination of V<sub>max</sub> and K<sub>M</sub> value for ATP



### Determination of K<sub>M</sub> value & Specific activity:

- Assay conditions:
  - 60 mM HEPES-NaOH, pH 7.5
  - 3 mM MgCl<sub>2</sub>
  - 3 mM MnCl<sub>2</sub>
  - 3 µM Na-orthovanadate
  - 1.2 mM DTT
  - 50 µg/ml PEG<sub>20,000</sub>
  - ATP (variable)
  - Substrate: TRK-C derived peptide 40 µg/ml
  - Kinase: 1 µg/ml
- Filter binding assay
  - MSPH membrane (Millipore)

## ALK C1156Y (GST-HIS-tag)

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GST-ALK C1156Y Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDKVLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMG <b>HHHHHG</b>	RDS <b>LEVLFCG</b>	240
241	<b>PLAMVLQAMQ</b>	<b>MELQSPYKYL</b>	<b>SKLRTSTIMT</b>	<b>DYNPNYCFAG</b>	<b>KTSSISDLKE</b>	<b>VPRKNITLIR</b>	300
301	<b>GLGHGAFGEV</b>	<b>YEQVSGMPN</b>	<b>DSPPLQVAVK</b>	<b>TLPEVYSEQD</b>	<b>ELDFLMEALI</b>	<b>ISKFNHQNIV</b>	360
361	<b>RCIGVSLQSL</b>	<b>PRFILLELMA</b>	<b>GGDLKSFLRE</b>	<b>TRPRPSQSS</b>	<b>LAMLDLLHVA</b>	<b>RDIACGCQYL</b>	420
421	<b>EENHFIHRDI</b>	<b>AARNCLLTC</b>	<b>GPRVAKIGD</b>	<b>FGMARDIYRA</b>	<b>SYRKGCCAM</b>	<b>LPVKWMPPEA</b>	480
481	<b>FMEGIFTSKT</b>	<b>DTWSFGVLLW</b>	<b>EIFSLGYMPY</b>	<b>PSKSNQEVLE</b>	<b>FVTSGGRMDP</b>	<b>PKNCPGPVYR</b>	540
541	<b>IMTQCWQHQP</b>	<b>EDRPNFAILL</b>	<b>ERIEYCTQDP</b>	<b>DVINTALPIE</b>	<b>YGPLVEEEEK</b>	<b>VPVRPKDPEG</b>	600
600	<b>VPPLLVSQQA</b>	<b>KREEERS</b>					660

1-218: GST **Red**: HIS6-tag **Green**: 3C cleavage site **blue**: ALK fragment **boxed**: C1156Y

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

**blue**: ALK sequence expressed in recombinant protein **Red**: variant in recombinant protein

<sup>1</sup>[NCBI/Protein](#) accession number NP\_004295.2

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