

ProQinase™ CDK15/CycA2

cyclin dependent kinase 15

Recombinant Human Active Protein Kinase

HGNC Symbol: CDK15

Synonyms: PFTAIR2; ALS2CR7; PFTK2

Product No.: 1889-0054-1

Lot: 001

Description: Human CDK15, internal fragment, amino acids Y₁₀₃-F₃₈₇ (as in [NCBI/Protein](#) entry NP_001248364.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site and human cyclin A2, full length, amino acids M1-L432 (as in [NCBI/Protein](#) entry NP_001228.1), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, co-expressed in Sf9 insect cells

Product identity: CDK15/CycA2 Lot 001, was confirmed as CDK15/CycA2 by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{Fusion Protein CDK15}: 60,389 Da

Theoretical MW_{Fusion Protein CycA2}: 74,928 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 10 µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.532 µg/µl

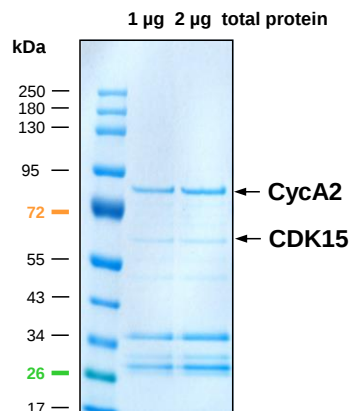
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

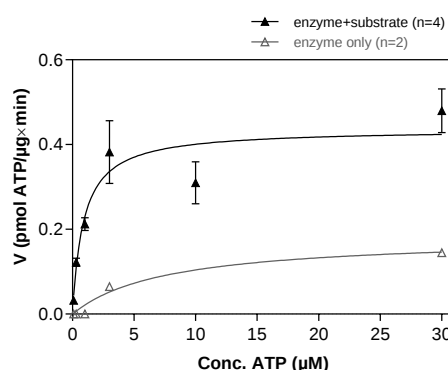
Specific kinase activity (P_i transfer): 0.44 pmol/µg x min

ATP-K_M: 0.9 µM

CDK15/CycA2 Lot 001:
Coomassie stain



CDK15/CycA2 Lot 001:
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: RBER-NTRK3tide 80 µg/ml
Kinase: 4 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

Sequence information

GST-CDK15 Recombinant Fusion Protein Amino Acid Sequence

1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHGG	RDSLEVLFGG	240
241	PYLNLKELGE	GSYATVYKGI	SRINGQLVAL	KVISMNAEEG	VPFTAIREAS	LLKGLKHANI	300
301	VLLHDIHTK	ETLTFVFEYM	HTDLAQYMSQ	HPGGLHPPNV	RLFMFQLLRG	LAYIHHQHVL	360
361	HRDLKPQNLL	ISHLGELKLA	DFGLARAKSI	PSQTYSSSEV	TLWYRPPDAL	LGATEYSSEL	420
421	DIWGAGCIFI	EMFQGQPLFP	GVSNILEQLE	KIWEVLGVPT	EDTWPGVSKL	PNYNPEWFPL	480
481	PTPRSLHVWV	NRLGRVPEAE	DLASQMLKGF	PRDRVSAQEA	LVHDYF		540

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: CDK15 fragment

CDK15 wt¹ Amino Acid Sequence

1	MGQELCAKTV	QPGCSCYHCS	EGGEAHSCRR	SQPETTEAAF	KLTDLKEASC	SMTSFHPRGL	60
61	QAARAQKFKS	KRPRNSDCF	QEEDLRQGFG	WRKSLPFGAA	SSYLNLEKLG	EGSYATVYKG	120
121	ISRINGQLVA	LKVISMNAEE	GVPFTAIREA	SLLKGLKHAN	IVLLHDIHT	KETLTFVFEY	180
181	MHTDLAQYMS	QHPGGLHPPN	VRLFMFQLLR	GLAYIHHQHV	LHRDLKPQNL	LISHLGELKL	240
241	ADFGLARAKS	IPSQTYSSSEV	VTWYRPPDA	LLGATEYSSE	LDIWGAGCIF	IEMFQGQPLF	300
301	PGVSNILEQL	EKIWEVLGVP	TEDTWPVSK	LPNYPWFPP	LPTPRSLHV	WNRLGRVPEA	360
361	EDLASQMLKG	FPRDRVSAQE	ALVHDYFSA	PSQLYQLPDV	SGVRLKPEMC	DLLASYQKGH	420
421	HPAQFSKCW						480

blue: CDK15 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_001248364.1

GST-CycA2 Recombinant Fusion Protein Amino Acid Sequence

1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	LVPRGSMVG	NSAPGPATRE	240
241	AGSALLALQQ	TALQEDQENI	NPEKAAPVQQ	PRTRAALAVL	KSGNPRGLAQ	QQRPKTRRVA	300
301	PLKDLVPVND	HVTVPWPKAN	SKQPAFTIIV	DEAEKEAQKK	PAESQKIERE	DALAFNSAIS	360
361	LPGPRKPLVP	LDYPMGGSFE	SPHTMDMSIV	LEDEKPVSVN	EVVDYHEDIH	TYLREMEVKC	420
421	KPKVGVMKKQ	PDITNSMRAI	LVDWLVEVGE	EYKLQNETLH	LAVNYIDRFL	SSMSVLRGKL	480
481	QLVGTAAMLL	ASKFEEIYPP	EVAEFVYITD	DTYTKKQVLR	MEHLVLKVL	FDLAAPTQVQ	540
541	FLTQYFLHQQ	PANCKVESLA	MFLGELSLID	ADPYLKYLPS	VIAGAAFHLA	LYTVTGQSWP	600
601	ESLIRKTGYT	LESCLKCLMD	LHQTYLKAPQ	HAQQSIREKY	KNSKYHGVSL	LNPPELNL	660

1-218: GST Pink: Thrombin cleavage site blue: CycA2

CycA2 wt² Amino Acid Sequence

1	MLGNSAPGPA	TREAGSALLA	LQQTALQEDQ	ENINPEKAAP	VQQPRTRAAL	AVLKSGNPRG	60
61	LAQQQRPKTR	RVAPLKDLPV	NDEHVTVPWP	KANSKQPAFT	IHVDEAEKEA	QKKPAESQKI	120
121	EREDALAFNS	AISLPGPRKP	LVPLDYPMDG	SFESPHMDM	SIVLEDEKPV	SVNEVPDYHE	180
181	DIHTYLREME	VKCKPKVGYM	KKQPDITNSM	RAILVDWLVE	VGEEYKLQNE	TLHLAVNYID	240
241	RFLSSMSVLR	GKLQLVGTAA	MLLASKFEEI	YPPEVAEFVY	ITDDTYTKKQ	VLRMEHLVLK	300
301	VLTFDLAAPT	SNQFLTQYFL	HQQPANCKVE	SLAMFLGELS	LIDADPYLKY	LPSVIAGAAF	360
361	HLALYTVTGQ	SWPESLIRKT	GYTLESCLKPC	LMDLHQTYLK	APQHAQQSIR	EKYKNSKYHG	420
421	VSLNPPETL	NL					480

blue: CycA2 sequence expressed in recombinant protein

²[NCBI/Protein](#) accession number NP_001228.1

HGNC identifier CycA2: CCNA2