

ProQinase™ CDK19/CycC

cyclin dependent kinase 19 / cyclin C

Recombinant Human Active Protein Kinase

HGNC Symbol: CDK19

Synonyms: CDC2L6, CDK11

Product No.: 1384-0390-1

Lot: 017

Description: Human CDK19, amino acids M₁-Y₅₀₂ (as in [NCBI/Protein](#) entry NP_055891.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site and human CycC, amino acids M₁-S₂₈₃ (as in [NCBI/Protein](#) entry NP_005181.2), N-terminally fused to HIS₆-Thrombin cleavage site, coexpressed in Sf9 insect cells

Product identity: CDK19/CycC Lot 017, was confirmed as CDK19/CycC by mass spectroscopy LC-ESI-MS/MS

Theoretical MW_{GST-CDK19} : 84,892 Da

Theoretical MW_{CycC} : 37,999 Da

Expression host: Sf9 insect cells

Purification:

Immobilized Metal 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, 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: 0.504 µg/µl

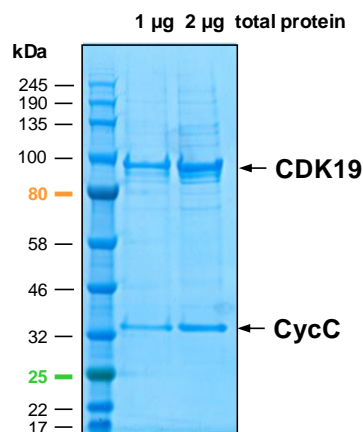
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

Biochemical Parameters:

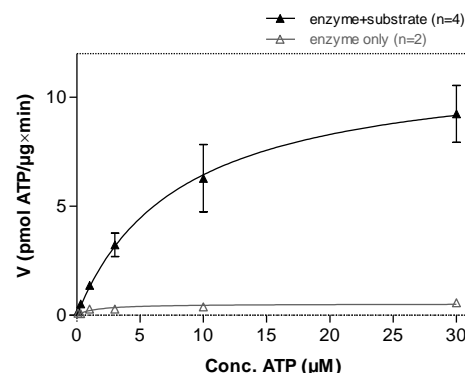
Specific kinase activity (P_i transfer): 12 pmol/µg x min

ATP-K_M: 8.1 µM

CDK19/CycC Lot 017:
Coomassie stain



CDK19/CycC Lot 017:
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-IRStide 80 µg/ml
Kinase: 2 µg/ml
- Filter binding assay
MSFC membrane (Millipore)

ProQinase™ CDK19/CycC

Product No.: 1384-0390-1

GST-CDK19 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFGQ	240
241	MDYDFKAKL	AAERERVELD	FEYEGCKVGR	GTYGHVYKAR	RKDGKDEKEY	ALKQIEGTGI	300
301	SMSACREIAL	LRELKHPNVI	ALQKVFSLHS	DRKVLLFDY	AEHDLWHI IK	FHRASKANKK	360
361	PMQLPRSMVK	SLLYQILDGI	HYLHANWVLH	RDLK PANILV	MGEGPERGRV	KIADMGFARL	420
421	FNSPLKPLAD	LDPVVVTFWY	RAPELLLGAR	HYTKAIDIWA	IGCIFAE LLT	SEPIFHCRQE	480
481	DIKTSNPFHH	DQLDRIFSVM	GFPADKWED	IRKMPEYPTL	QKDFRRTTYA	NSSLIKYMEK	540
541	HKVKPDSKVF	LLLQKLLTMD	PTKRITSEQA	LQDPYFQEDP	LPTLDV FAGC	QIPYPKREFL	600
601	NEDDPEEKGD	KNQQQQNQH	QQPTAPPQQA	AAPPQAPPQ	QNSTQTNGTA	GGAGAGVGGT	660
661	GAGLQHSQDS	SLNQVPPNKK	PRLGPSGANS	GGPVMPSDYQ	HSSRLNYQS	SVQSSQSQS	720
721	TLGYSSSSQ	SSQYHPSHQA	HRY				780

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: CDK19

Kinase wt ¹ Amino Acid Sequence							
1	MDYDFKAKLA	AERERVELDF	EYEGCKVGRG	TYGHVYKARR	KDGKDEKEYA	LKQIEGTGIS	60
61	MSACREIALL	RELKHPNVIA	LQKVFSLHSD	RKVLLFDYA	EHDLWHI IKF	HRASKANKKP	120
121	MQLPRSMVKS	LLYQILDGIH	YLHANWV LHR	DLK PANILVM	GEGPERGRVK	IADMGFARLF	180
181	NSPLKPLADL	DPVVVTFWYR	APELLLGARH	YTKAIDIWAI	GCIFAE LLTS	EPIFHCRQED	240
241	IKTSNPFHHD	QLDRIFSVMG	F PADKWEDI	RKMPEYPTLQ	KDFRRTTYAN	SSLIK YMEKH	300
301	KVKPDSKVFL	LLQKLLTMDP	TKRITSEQAL	QDPYFQEDPL	PTLDV FAGCQ	IPYPKREFLN	360
361	EDDPEEKGDK	NQQQQNQHQ	QPTAPPQQA	APPQAPPQ	NSTQTNGTAG	GAGAGVGGTG	420
421	AGLQHSQDSS	LNQVPPNKKP	RLGPSGANS	GPVMPSDYQH	SSSRLNYQSS	VQSSQSQST	480
481	LGYS SSSQ	SQYHPSHQA	RY				540

blue: CDK19 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_055891.1

HIS-CycC Recombinant Fusion Protein Amino Acid Sequence							
1	MSPIDPMGHH	HHHHGRRRAS	VAAGILVPRG	SPGLDGIYAR	GIQASMAGNF	WQSSHYLQWI	60
61	LDKQDLLKER	QKDLKFLSEE	EYWKLQIFFT	NVIQALGEHL	KLRQQVIATA	TVYFKRFYAR	120
121	YSLKSIDPVL	MAPTCVFLAS	KVEEFGVVS	TRLIAAATSV	LKTRFSYAFP	KEFPYRMNHI	180
181	LECEFYLLEL	MDCCLIVYHP	YRPLLQYVQD	MGQEDMLLPL	AWRIVNDTYR	TDLCLLYPPF	240
241	MIALACLHVA	CVVQK DARQ	WFAELSDVME	KILEIIRVIL	KLYEQWKNFD	ERKEMATILS	300
301	KMPKPKPPPN	SEGEQPNGS	QNSSYSQD				360

Red: HIS6-tag Pink: Thrombin cleavage site blue: CycC

CycC wt ² Amino Acid Sequence							
1	MAGNFWQSSH	YLQWILDKQD	LLKERQKDLK	FLSEEEYWKL	QIFFTNVIQA	LGEHLKLRQQ	60
61	VIATATVYFK	RFYARYSLKS	IDPVLMAPTC	VFLASKVEEF	GVSNTRLIA	AATSVLKTFR	120
121	SYAFPKEFPY	RMNHILECEF	YLLELMDCCL	IVYHPYRPLL	QYVQDMGQED	MLLPLAWRIV	180
181	NDTYRTDLC	LYPPFMIALA	CLHVACVVQQ	KDARQWFAEL	SVDMEKILEI	IRVILKLYEQ	240
241	WKNFDERKEM	ATILSKMPKP	KPPPNSEGEQ	GPNGSQNSSY	SQS		300

blue: CycC sequence expressed in recombinant protein

²[NCBI/Protein](#) accession number NP_005181.2
[HGNC](#) symbol CycC: CCNC

This product was manufactured at Reaction Biology in Freiburg, Germany, and is for in vitro research use only, not for use in humans or animals.
© European Union, 2020. Material may not be reproduced or distributed without written permission from Reaction Biology Europe GmbH