

Certificate of Analysis



CDK6/CycD3 (non activated)

Cyclin-dependent kinase 6

Recombinant Human Protein Kinase

HGNC Symbol: CDK6

Synonyms: PLSTIRE

Product No.: 0051-0373-2

Lot: 003

Description: Co-expression of human CDK6, amino acids M₁-A₃₂₆ (as in NCBI/Protein entry NP_001250.1), N-terminal GST fusion protein with a Thrombin cleavage site and human CycD3, amino acids M₁-L₂₉₂ (as in NCBI/Protein entry NP_001751.1), N-terminally fused to HIS₆-Thrombin cleavage site, expressed in Sf9 insect cells

Theoretical MW_{GST-CDK6}: 63,279 Da

Theoretical MW_{CycD3}: 37,260 Da

Expression: Baculovirus infected Sf9 cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by CAK1 in-vitro activation

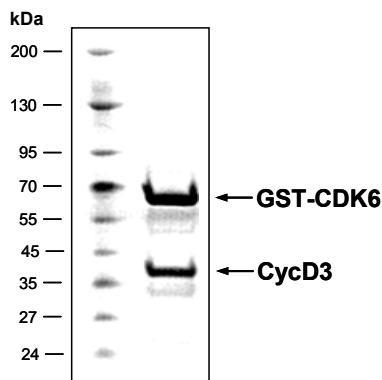
Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20% glycerol

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!

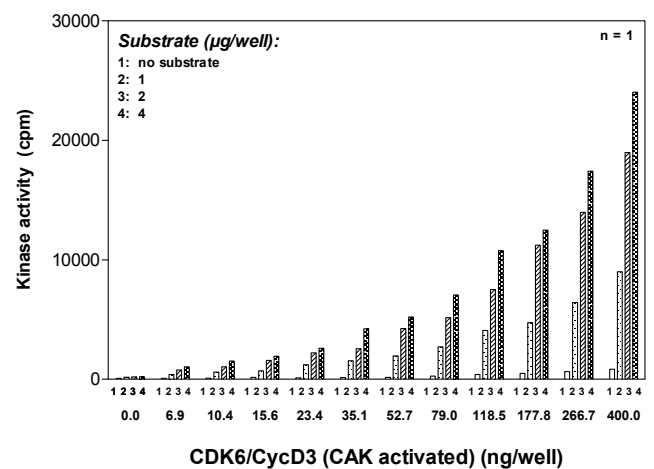
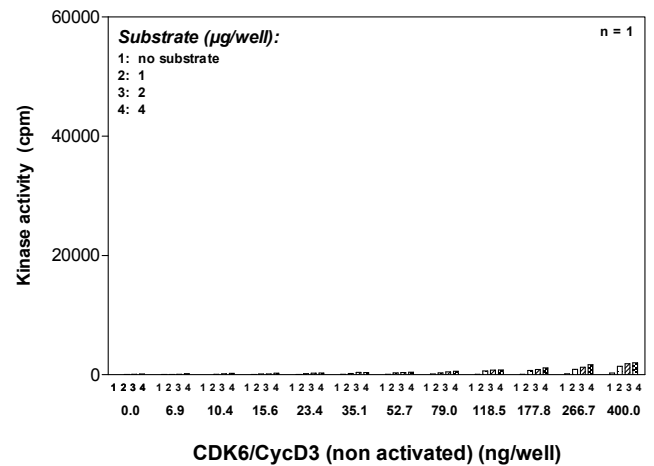
Protein concentration: 0.514 µg/µl (Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

CDK6/CycD3 (non activated) Lot 003:
Coomassie stain



CDK6/CycD3 (non activated)

Kinase activity CDK6/CycD3 (non activated) vs CDK6/CycD3 (CAK activated):



Final assay concentrations:

- 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}
- 1 µM ATP
- Substrate: RBER-CHKtide, 20µg/ml
- Kinase: CDK6/CycD3 (non activated) or CDK6/CycD3 (activated) [1µg/ml]

Assay: ³³PanQinase® Assay

This product was manufactured at ProQinase in Freiburg, Germany and is for in vitro research use only, not for use in humans or animals. ProQinase disclaims any warranty explicitly or implied that the use of the product or parts of the product is free from third party intellectual property claims unless this is explicitly stated.

CDK6/CycD3 (non activated)

Product No.: 0051-0373-2

CDK6 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYYY	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSM	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	LVPRGSM GLCRADQQYE		240
241	CVAEIGEGAY	GKVFKARDLK	NGGRFVALKR	VRVQTGEEGM	PLSTIREVAV	LRHLETFEHP	300
301	NVRLFDVCT	VSRTDRETKL	TLVFEHVDQD	LTTYLDKVPE	PGVPTETIKD	MMFQLLRGLD	360
361	FLHSHRVVHR	DLKPQNILVT	SSGQIKLADF	GLARIYSFQM	ALTSVVVTLW	YRAPEVLLQS	420
421	SYATPVDLWS	VGCIFAEMFR	RKPLFRGSSY	VDQLGKILDV	IGLPGCEEDWP	RDVALPRQAF	480
481	HSKSAQPIEK	FVTDIDELGK	LLLLKCLTFN	PAKRISAYSA	LSHPYFQDLE	RCKENLDSHL	540
541	PPSQNTSELN	TA					600

normal print: GST **PINK**: Thrombin **blue**: CDK6 **boxed**: variation from RefSeq

CDK6 wt ¹ amino acid sequence							
1	MEKDG LCRAD	QQYEC VAEIG	EGAYG KVFKA	RDLKN GGRFV	ALKRVR VQTG	EEGM PLSTIR	60
61	EVAVLR HLET	FEHPNV VRLF	DVCTVS RTRD	ETKLT LVFEH	VDQLT TYLD	KEVPE PGVPTE	120
121	TIKDM MFQLL	RGLDF LHSHR	VVHRD LKPQN	ILVTSS GQIK	LADFL LARIY	SFQMA LTSV	180
181	VTLWY RAPEV	LLQSS YATPV	DLWSV GCIFA	EMFRR KPLFR	GSSD VDQLGK	ILDVI GLPGE	240
241	EDWPR DVALP	RQAFH SKSAQ	PIEKF VTDID	ELGKD LLLLKC	LTFNP AKRIS	AYSAL SHPYF	300
301	QDLER CKENL	DSHL PPSQNT	SELN TA				360

blue: CDK19 sequence expressed in fusionprotein **RED** letters: variant in Fusionprotein

¹NCBI/Protein accession number NP_001250.1

CycD3 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPIDPMG HH	HHHH GRRAS	VAAGI LVPRG	SPGLD GIYAR	GIQAS MELLC	CEGTR HAPRA	60
61	GPDPR LLGDQ	RVLQS LLRLE	ERYVP PRASYF	QCVQR EIKPH	MRKML LAYWML	EVCEE QRCEE	120
121	EVFPL AMNYL	DRYLS CVPTR	KAQLQ LLGAV	CMLL LASKLRE	TTPLT IEKLC	IYTDH AVSPR	180
181	QLRDW EVVLV	GKLKW DAAV	IAHDF LAFIL	HRLSL PRDRQ	ALVKK HAQTF	LALCA TDYTF	240
241	AMYPP SMIAT	GSIGAA VQGL	GACSM SDEL	TELLA GITGT	EVDCL RACQE	QIEAA LRESL	300
301	REA QTS SSP	APKAP RGSSS	QGPSQ TSTPT	DVTAI HL			360

RED: HIS6-tag **PINK**: Thrombin **blue**: Cyclin D3 **boxed**: variation from RefSeq

CycD3 wt ² amino acid sequence							
1	MELLC CEGTR	HAPRAG PDPR	LLGDQ RVLQS	LLRLE EERYVP	RASYF QCVQR	EIKPH MRKML	60
61	AYWML EVCEE	QRCEE EVFPL	AMNYL DRYLS	CVPTR KAQLO	LLGAV CMLLA	SKLRE TTPLT	120
121	IEKLC IYTDH	AVSPR QLRDW	EVLVL GKLKW	DLAAV IAHDF	LAFIL HRLSL	PRDRQ ALVKK	180
181	HAQTF LALCA	TDYTF FAMYP	SMIAT GSIGA	AVQGL GACSM	SGDEL TELLA	GITGT EVDC	240
241	RACQE QIEAA	LRESL REASQ	TSSSP PAPKAP	RGSSS QGPSQ	TSTPT DVTAI	HL	300

blue: CycD3 sequence expressed in fusionprotein **RED** letters: variant in Fusionprotein

²NCBI/Protein accession number NP_001751.1

S259A: SNP variation see NCBI/dbSNP ID: rs386700585

This product was manufactured at ProQinase in Freiburg, Germany and is for in vitro research use only, not for use in humans or animals. ProQinase disclaims any warranty explicitly or implied that the use of the product or parts of the product is free from third party intellectual property claims unless this is explicitly stated.