

## ProQinase™ 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 M<sub>1</sub>-A<sub>326</sub> (as in NCBI/Protein entry NP\_001250.1), N-terminal GST fusion protein with a Thrombin cleavage site and human CycD3, amino acids M<sub>1</sub>-L<sub>292</sub> (as in NCBI/Protein entry NP\_001751.1), N-terminally fused to HIS<sub>6</sub>-Thrombin cleavage site, expressed in Sf9 insect cells

**Theoretical MW<sub>GST-CDK6</sub>:** 63,279 Da

**Theoretical MW<sub>CycD3</sub>:** 37,260 Da

**Expression:** Baculovirus infected Sf9 cells

**Purification:** GST-Affinity Chromatography

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

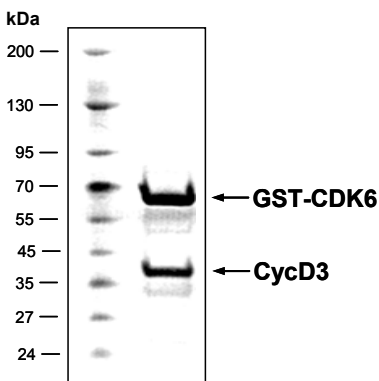
**Storage buffer:** 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20% glycerol

**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!

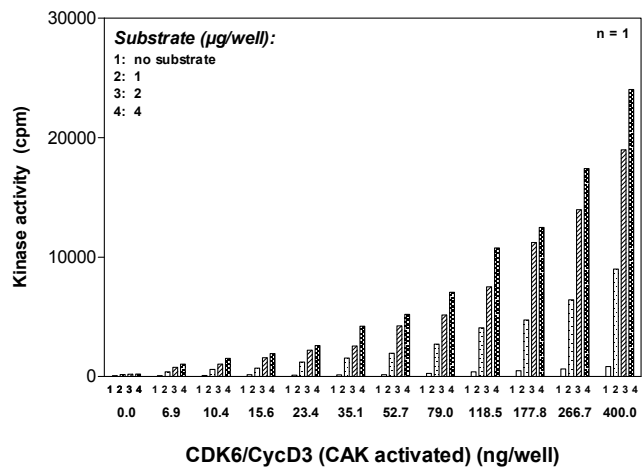
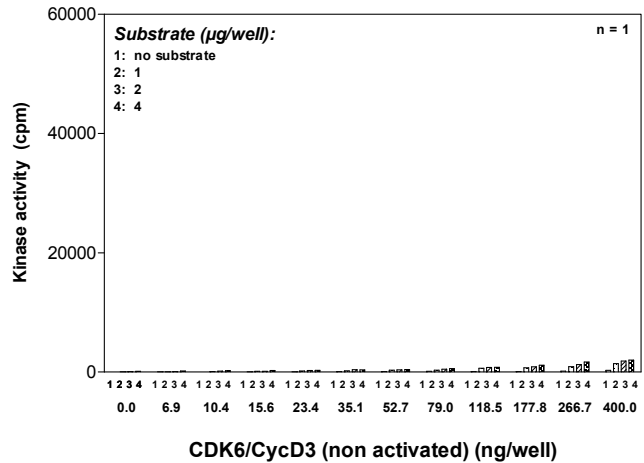
**Protein concentration:** 0.514 µg/µl (Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

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

**Assay:** <sup>33</sup>PanQinase® Assay

Recombinant Proteins

## ProQinase™ CDK6/CycD3 (non activated)

Product No.: 0051-0373-2

Recombinant Proteins

### CDK6 Recombinant Fusion Protein Amino Acid Sequence

1	MSPILGYWKI	KGLVQPTRL	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	LVPRGSMEKD	GLCRADQOYE	240
241	CVAEIGEGAY	GKVFKARDLK	NGGRFVALKR	VRVQTGEEGM	PLSTIREVAV	LRHLETFEHP	300
301	NVVRLFVCT	VSRTDRETKL	TLVFEHVDQD	LTTYLDKVPE	PGVPTETIKD	MMFQLLRGLD	360
361	FLHSHRVVHR	DLKPQNILVT	SSGQIKLADF	GLARIYSFQM	ALTSVVVTLW	YRAPEVLLQS	420
421	SYATPVDLWS	VGCIFAEMFR	RKPLFRGSSY	VDQLGKILDV	IGLPGEEDWP	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<sup>1</sup> amino acid sequence

1	MEKDGLCRAD	QQYECVAEIG	EGAYGKVFKA	RDLKNGGRFV	ALKRVRVQTG	EEGMPLSTIR	60
61	EVAVLRHLET	FEHPNVVRLF	DVCTVSRTDR	ETKLTIVFEH	VDQDLTTYLD	KVPEPGVPT	120
121	TIKMMFQQL	RGLDFLHSHR	VVHRDLKPQN	ILVTSSGQIK	LADFGRLARI	SFQMALTSV	180
181	VTLWYRAPEV	LLQSSYATPV	DLWSVGCIFA	EMFRRKPLFR	GSSD <sup>1</sup> VDQLGK	ILDVIGLPGE	240
241	EDWPRDVALP	RQAFHKSQAQ	PIEKFVTDID	ELGKDLLLKC	LTFNPAKRIS	AYSALSHPYF	300
301	QDLERCKENL	DSHLPPSQNT	SELNTA				360

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

<sup>1</sup>NCBI/Protein accession number NP\_001250.1

### CycD3 Recombinant Fusion Protein Amino Acid Sequence

1	MSPIDPMGHH	HHHHGRRRAS	VAAGILVPRG	SPGLDGIYAR	GIQASMELLC	CEGTRHAPRA	60
61	GPDPRLIGDQ	RVLQSLRLLE	ERYVPRASYF	QCVQREIKPH	MRKMLAYWML	EVCEEQRCEE	120
121	EVFPLAMNYL	DRYLSCVPTR	KAQLQLLGA	CMLLASKLRE	TPPLTIEKLC	IYTDHAVSPR	180
181	QLRDWEVLVL	GKLNKDLAAV	IAHDFLAFIL	HRLSLPRDRQ	ALVKKHAQTF	LALCATDYTF	240
241	AMYPPSMIAT	GSIGAAVQGL	GACSMGDEL	TELLAGITGT	EVDCLRACQE	QIEAALRESL	300
301	REAAQTSSSP	APKAPRGSSS	QGPSQTSTPT	DVTAIHL			360

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

### CycD3 wt<sup>2</sup> amino acid sequence

1	MELLCCEGTR	HAPRAGPDP	LLGDQRVLQS	LLRLEERYVP	RASYFQCVQR	EIKPHMRKML	60
61	AYWMLEVCEE	QRCEEEVFPL	AMNYLDRYLS	CVPTKRAQLQ	LLGAVCMLLA	SKLRETTPLT	120
121	IEKLCIYTDH	AVSPRQLRDW	EVLVLGKLLK	DLAAVIAHDF	LAFILHRLSL	PRDRQALVKK	180
181	HAQTFLALCA	TDYTFAMYPP	SMIATGSIGA	AVQGLGACSM	SGDELTELLA	GITGTEVDCL	240
241	RACQEIEAA	LRESLREASQ	TSSSPAPKAP	RGSSSQGPSQ	TSTPTDVTAI	HL	300

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

<sup>2</sup>NCBI/Protein accession number NP\_001751.1  
S259A: SNP variation see NCBI/dbSNP ID: rs386700585