

ProQinase™ CDK1

cyclin dependent kinase 1

Recombinant Human Protein Kinase

HGNC Symbol: CDK1

Synonyms: CDC2, CDC28A

Product No.: 0134-0000-1

Lot: 004

Description: Human CDK1, full length, amino acids M₁-M₂₉₇ (as in [NCBI/Protein](#) entry NP_001777.1), N-terminal GST-HIS₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Theoretical MW_{Fusion Protein}: 63,882 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

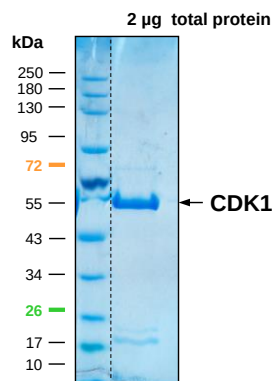
Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20 % glycerol

Storage temperature: -80°C

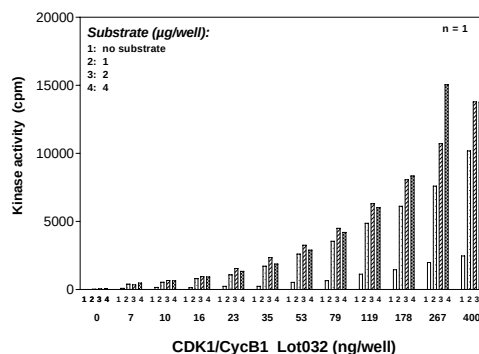
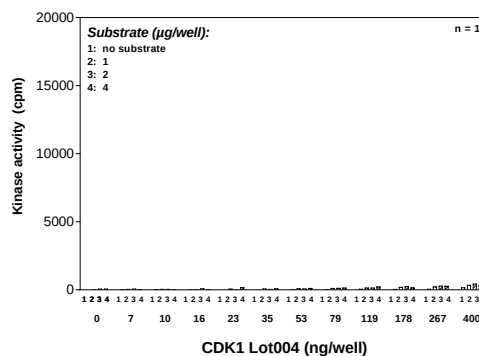
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10 µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.425 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

**CDK1 Lot 004:
Coomassie stain**



**Kinase activity:
CDK1 compared to CDK1/CycB1 complex:**



- 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}
- 1 µM ATP (610,000 cpm ³³P-γ-ATP)
- Substrate (variable): Histone H1
- Recombinant CDK1 or CDK1/CycB1 (variable)
- Assay: ³³PanQinase® Assay

Sequence information

GST-CDK1 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLIERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GICSIEEFTM	EDYTKIEKIG	EGTYGVVYKG	RHKTGQVVA	MKKIRLESSE	300
301	EGVPSTAIRES	ISLLKELRHP	NIVSLQDVLM	QDSRLYLIFE	FLSMDLKLYL	DSIPPGQYMD	360
361	SSLVKSYLYQ	ILQGIVFCHS	RRVLHRDLKP	QNLLIDDKGT	IKLADFLAR	AFGIPIRVYT	420
421	HEVVTWLYRS	PEVLLGSARY	STPVDIWSIG	TIFAELATKK	PLFHGDSEID	QLFRIFRALG	480
481	TPNNEVWPEV	ESLQDYKNTF	PKWKPGSLAS	HVKNLDENGL	DLLSKMLIYD	PAKRISGKMA	540
541	LNHPYFNDLD	NQIKKM					600

1-218: GST Red: HIS6-tag Pink: Thrombin cleavage site blue: CDK1 boxed: variation from RefSeq

CDK1 wt ¹ Amino Acid Sequence							
1	MEDYTKIEKI	GEGTYGVVYK	GRHKTGQVV	AMKKIRLESSE	EEGVPSTAIR	EISLLKELRH	60
61	PNIVSLQDVL	MQDSRLYLIF	EFLSMDLKKY	LDSIPPGQYM	DSSLVKSYLY	QILQGIVFCH	120
121	SRRVLHRDLK	PQNLLIDDKG	TIKLADFLA	RAFGIPIRVY	THEVVTWLYR	SPEVLLGSAR	180
181	YSTPVDIWSI	GTIFAELATK	KPLFHGDSEI	DQLFRIFRAL	GTPNNEVWPE	VESLQDYKNT	240
241	FPKWKPGSLA	SHVKNLDENG	LDLLSKMLIY	DPAKRISGKM	ALNHPYFNDL	DNQIKKM	300

blue: CDK1 sequence expressed in recombinant protein Red: variant in recombinant protein

¹[NCBI/Protein](https://www.ncbi.nlm.nih.gov/protein/NP_001777.1) accession number NP_001777.1