

CDK2

cyclin dependent kinase 2

Recombinant Human Protein Kinase

HGNC Symbol: CDK2

Synonyms: p33

Product No.: 0050-0000-1

Lot: 001

Description: Human CDK2, full length, amino acids M₁-L₂₉₈ (as in [NCBI/Protein](#) entry NP_001789.2), N-terminal GST fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: CDK2 Lot 001, was confirmed as CDK2 by specific Western blotting

Theoretical MW_{Fusion Protein}: 60,222 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

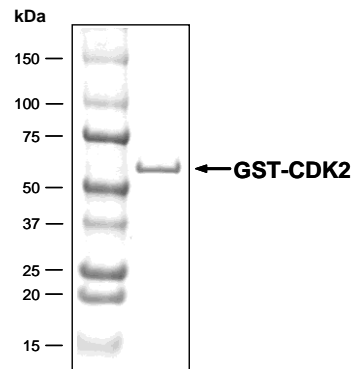
Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20 % glycerol

Storage temperature: -80°C

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

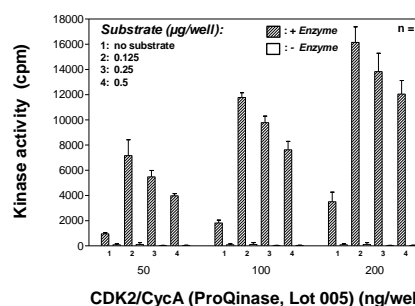
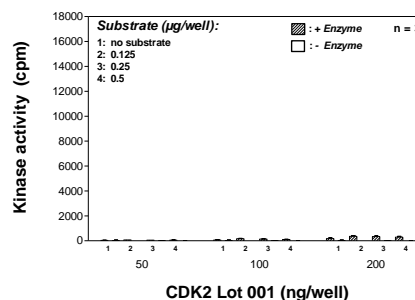
Protein concentration: 0.193 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

CDK2 Lot 001: Coomassie stain



2.0 µg GST-CDK2

Kinase activity CDK2 vs active CDK2/CycA:



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 (610,000 cpm ³³P-γ-ATP)
- Substrate (variable): Histone H1
- Recombinant CDK2 or CDK2/CycA (variable)

Assay: ³³PanQinase® Assay

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GST-CDK2 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPQID	KYLKSSKYIA	WPLQGQWQATF	GGGDHPPKSD	LVPRGSMENF	QKVEKIGEGT	240
241	YGVVYKARNK	LTGEVVALKK	IRLDTETEGV	PSTAIRESISL	LKELNHPNIV	KLLDVIHTEN	300
301	KLYLVFEFLH	QDLKKFMDAS	ALTGIPLPLI	KSYLFQLLQG	LAFCHSHRVL	HRDLKPQNLL	360
361	INTEGAIKLA	DFGLARAFGV	PVRTYTHEVV	TLWYRAPEIL	LGCKYYSTAV	DIWSLGCIFA	420
421	EMVTRRALFP	GDSEIDQLFR	IFRTLGTPE	VVWPGVTSMP	DYKPSFPKWA	RQDFSKVVP	480
481	LDEDGRSLLS	QMLHYDPNKR	ISAKAALAH	FFQDVTKPVP	HLRL		540

1-218: GST **Pink**: Thrombin cleavage site **blue**: CDK2

CDK2 wt ¹ Amino Acid Sequence							
1	MENFQKVEKI	GEGTYGVVYK	ARNKLTGEVV	ALKKIRLDTE	TEGVPSTAIR	EISLLKELNH	60
61	PNIVKLLDVI	HTENKLYLVF	EFLHQDLKKE	MDASALTGIP	LPLIKSYLFQ	LLQGLAFCHS	120
121	HRVLHRDLKP	QNLLINTEGA	IKLADFGLAR	AFGVPVRTYT	HEVVTWYRA	PEILLGCKYY	180
181	STAVDIWSLG	CIFAEMVTRR	ALFPGDSEID	QLFRIFRTL	TPDEVVWPGV	TSMPDYKPSF	240
241	PKWARQDFSK	VVPLDEDGR	SLLSQMLHYD	PNKRISAKAA	LAHPFFQDVT	KVPVHLRL	300

blue: CDK2 sequence expressed in recombinant protein

¹[NCBI/Protein](#) accession number NP_001789.2

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