

ProQinase™ CDK8

cyclin dependent kinase 8

Recombinant Human Protein Kinase

HGNC Symbol: CDK8

Synonyms: K35

Product No.: 0376-0000-1

Lot: 001

Description: Human CDK8, full length, amino acids M₁-Y₄₆₄ (as in NCBI/Protein entry NP_001251.1), N-terminal GST fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: CDK8, Lot 001, was confirmed as CDK8 by Western Blotting, using a CDK8 specific antibody

Theoretical MW_{Fusion Protein}: 83,179 Da

Expression: Baculovirus infected Sf9 cells

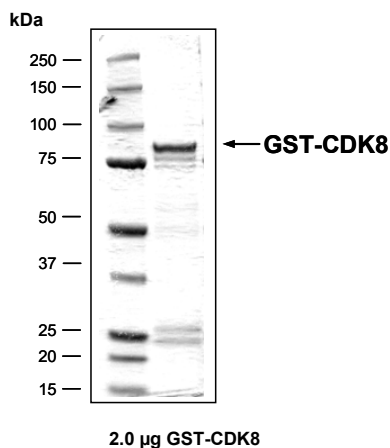
Purification: GST-Affinity Chromatography

Storage buffer: 50 mM Tris pH 8.0, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20% glycerol

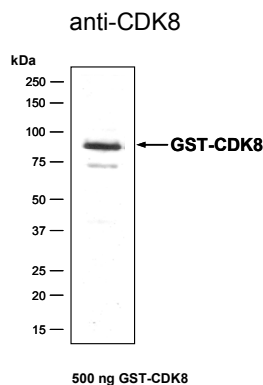
Storage temperature: -80°C
Avoid repeated freeze-thaw cycles!

Protein concentration: 0.114 µg/µl
(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

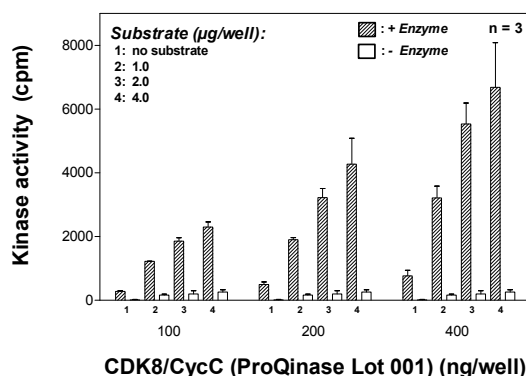
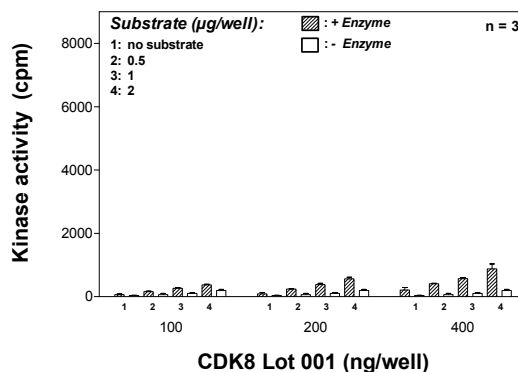
CDK8 Lot 001: Coomassie stain



CDK8 Lot 001: Western Blot Analysis



Kinase activity CDK8 vs active CDK8/CycC:



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): RB-CTF
 - Recombinant CDK8 or CDK8/CycC (variable)
- Assay:** ³³PanQinase® Assay

ProQinase™ CDK8

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CDK8 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQ SMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLP EML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI P QID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHGG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARGIQAS	MDYDFKVKLS	SERERVEDLF	EYEGCKVGRG	TYGHVYKAKR	300
301	KDGKDDKDYA	LKQIEGTGIS	MSACREIALL	RELKHPNVIS	LQKVFLSHAD	RKVWLLFDYA	360
361	EHDLWHI IKF	HRASKANKKP	VQLPRGMVKS	LLYQILDGIIH	YLHANWVLHR	DLKPANILVM	420
421	GEGPERGRVK	IADMGFARLF	NSPLKPLADL	DPVVVTFWYR	APELLLGARH	YTKAIDIWAI	480
481	GCIFAE LLTS	EPIFHCROED	IKTSNPYHHD	QLDRIFNVMG	FPAKDWEDI	KKMPEHSTLM	540
541	KDFRRNTYTN	CSLIK YMEKH	KVKPDSKAFH	LLQKLLTMDP	IKRITSEQAM	QDPYFLEDPL	600
601	PTSDVFAGCQ	IPYPKREFLT	EEEPDDKGDK	KNQQQQQGNN	HTNGTGHPGN	QDSSHTQGPP	660
661	LKKVRVVPPT	TTSGGLIMTS	DYQRSNP HAA	YPNPGPSTSQ	PQSSMGYSAT	SQPPQYSHQ	720
721	THRY						780

1-218: GST Red: HIS6-tag Green: Thrombin blue: CDK8

CDK8 wt ¹ amino acid sequence							
1	MDYDFKVKLS	SERERVEDLF	EYEGCKVGRG	TYGHVYKAKR	KDGKDDKDYA	LKQIEGTGIS	60
61	MSACREIALL	RELKHPNVIS	LQKVFLSHAD	RKVWLLFDYA	EHDLWHI IKF	HRASKANKKP	120
121	VQLPRGMVKS	LLYQILDGIIH	YLHANWVLHR	DLKPANILVM	GEGPERGRVK	IADMGFARLF	180
181	NSPLKPLADL	DPVVVTFWYR	APELLLGARH	YTKAIDIWAI	GCIFAE LLTS	EPIFHCROED	240
241	IKTSNPYHHD	QLDRIFNVMG	FPAKDWEDI	KKMPEHSTLM	KDFRRNTYTN	CSLIK YMEKH	300
301	KVKPDSKAFH	LLQKLLTMDP	IKRITSEQAM	QDPYFLEDPL	PTSDVFAGCQ	IPYPKREFLT	360
361	EEEPDDKGDK	KNQQQQQGNN	HTNGTGHPGN	QDSSHTQGPP	LKKVRVVPPT	TTSGGLIMTS	420
421	DYQRSNP HAA	YPNPGPSTSQ	PQSSMGYSAT	SQPPQYSHQ	THRY		480

blue: CDK8 sequence expressed in fusionprotein

¹NCBI/Protein accession number NP_001251.1

Recombinant Proteins