

Certificate of Analysis



CDK5

cyclin dependent kinase 5

Recombinant Human Protein Kinase

HGNC Symbol: CDK5

Synonyms: PSSALRE

Product No.: 0356-0000-1

Lot: 002

Description: Human CDK5, amino acids M₁-P₂₉₂ (as in NCBI/Protein entry NP_004926.1), N-terminal GST-His₆ fusion protein with a Thrombin cleavage site, expressed in Sf9 insect cells

Product identity: CDK5, Lot 002, was confirmed as CDK5 by Western Blotting, using a CDK5 specific antibody

Theoretical MW_{Fusion Protein}: 62,841 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Storage buffer: 50 mM Tris pH 8.0, 100 mM NaCl, 5 mM DTT, 4 mM reduced glutathione, 20% glycerol

Storage temperature: -80°C

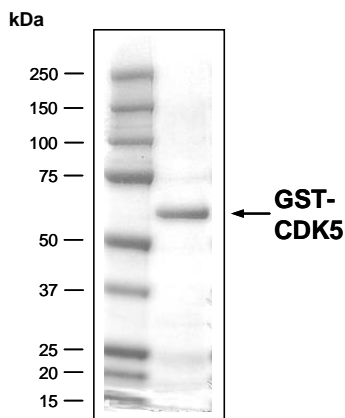
For complete recovery, mix well and spin before use. Product must not be stored in diluted solutions, aliquots below 10µl are not advisable. Avoid repeated freeze-thaw cycles!

Protein concentration: 0.940 µg/µl

(Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

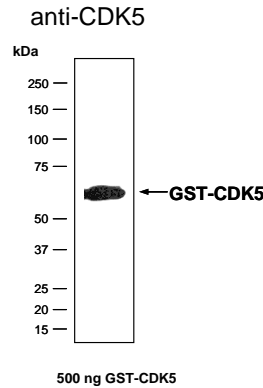
CDK5 Lot 002:

Coomassie stain

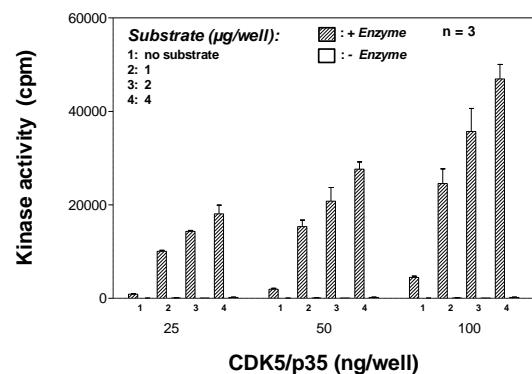
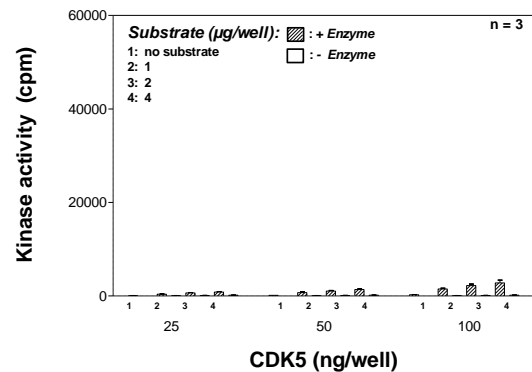


2.0 µg GST-CDK5

CDK5 Lot 002: Western Blot Analysis



Kinase activity CDK5 vs CDK5/p35 complexes:



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 (798,000 cpm ³³P-γ-ATP)
- Substrate (variable): RB-CTF
- Recombinant CDK5 or CDK5/p35 (variable)

Assay: ³³PanQinase® Assay

CDK5

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GST-CDK5 Recombinant Fusion Protein Amino Acid Sequence							
1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQ SMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAI PQID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHHG	RRRASVAAGI	240
241	LVPRGSPGLD	GIYARPMQKY	EKLEKIGEGT	YGTVFKAKNR	ETHEIVALKR	VRLDDDDDEGV	300
301	PSSALREICL	LKELKHKNI	RLHDVLHSDK	KLTLVFEFCD	QDLKKYFDSC	NGDLDPEIVK	360
361	SFLFQLLKGL	GFCHSRNVLH	RDLKPQNLLI	NRNGELKLAD	FGLARAFGIP	VRCYSAEVVT	420
421	LWYRPPDVL	GAKLYSTSID	MWSAGCIFAE	LANAGRPLFP	GNDVDDQLKR	IFRLLGTPTE	480
481	EQWPSMTKLP	DYKPYMPYPA	TTSLVNVVVK	LNATGRDLLQ	NLLKCNPVQR	ISAEALQHP	540
541	YFSDFCPP						600

1-218: GST **Red**: HIS6-tag **Pink**: Thrombin cleavage site **blue**: CDK4 fragment

CDK5 wt ¹ Amino Acid Sequence							
1	MQKYEKLEKI	GEPTYGTVFK	AKNRETHEIV	ALKRVRLDDD	DEGVPSSALR	EICLLKELKH	60
61	KNIVRLHDVL	HSDKKLTLVF	EFCDQDLKKY	FDSCNGDLDP	EIVKSFLFQL	LKGLGFCHSR	120
121	NVLHRDLKPQ	NLLINRNGEL	KLADFGLARA	FGIPVRCYSA	EVVTLWYRPP	DVLF GAKLYS	180
181	TSIDMWSAGC	IFAE LANAGR	PLFP GNDVDD	QLKRIFRLLG	TPTEE QWPSM	TKLPDYKPY P	240
241	MYPATTSLVN	VVPKLNATGR	DLLQNLKCN	PVQRISAE EA	LQHPYFSDFC	PP	300

blue: CDK5 sequence expressed in recombinant protein

¹NCBI/Protein accession number NP_004926.1