

Certificate of Analysis

CLK2, 10 µg

CDC-Like Kinase 2, GST-tagged



Part Number: PV4201

Lot Number: 1853133D

Immediate Storage: -80°C

Shipping Conditions: dry ice

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Description:

Recombinant human protein, catalytic domain (amino acids 137-498), GST-tagged, expressed in insect cells. No special measures were taken to activate this kinase.

Specific Activity:

1,260 nmoles of phosphate transferred to S6 peptide substrate (AKRRRLSSLRA) per minute per mg of total protein at 30°C. Activity determined at a final protein concentration of 1.67 µg/mL.

Concentration:

0.41 mg/mL total protein as measured using the Bradford protein assay with BSA as a standard.

Calculated **5,830 nM**.

Storage and Handling:

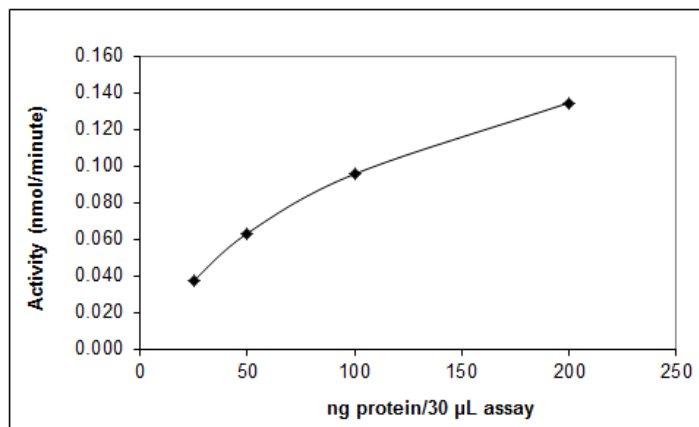
For maximum recovery please spin prior to use. Unless noted below, aliquots of the 5 µg, 10 µg and 20 µg sizes of kinase are not recommended as materials can be used in original packaging until exhausted. For larger sizes, the number of freeze/thaws may be reduced by preparing aliquots, aliquots below 20 µL are not recommended. **Please never store a kinase diluted.** If properly stored at -80°C, this product is guaranteed for 6 months from date of purchase.

Storage Buffer:

50 mM Tris (pH 7.5), 150 mM NaCl, 0.5 mM EDTA, 0.02% Triton® X-100, 2 mM DTT and 50% Glycerol.

QUALITY ASSURANCE

CLK2 Activity Graph



Dilution Buffer:

20 mM Tris (pH 7.5), 0.02% Triton® X-100, 0.1 mg/mL BSA, 2 mM DTT, 0.5 mM Na₃VO₄ and 10% Glycerol.

Assay Conditions:

CLK2 was pre-diluted in enzyme dilution buffer and assayed in 25 mM Tris (pH 7.5), 10 mM MgCl₂, 0.5 mM EGTA, 0.5 mM Na₃VO₄, 5 mM β-glycerophosphate, 2.5 mM DTT, 0.01% Triton® X-100, 200 µM ATP, 333.3 µg/mL S6 peptide substrate (AKRRRLSSLRA) and trace [³²P]-γ-ATP for 10 minutes at 30°C.

Gel Information for CLK2

Page Description: The SDS-PAGE and/or Native PAGE were run on 4-20% Tris-Glycine Novex® gels (Catalog #: EC6025BOX).

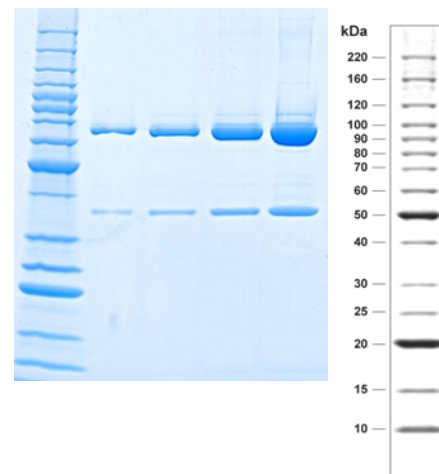
Lane 1: Invitrogen™ BenchMark™ Protein Ladder (Catalog #: 10747-012).

Lane 2: 0.5 µg CLK2

Lane 3: 1.0 µg CLK2

Lane 4: 2.5 µg CLK2

Lane 5: 5.0 µg CLK2



Purity:

70% as determined by a Coomassie® blue stained SDS-PAGE gel.

Molecular Weight:

70.3 kDa. Calculated from the protein sequence(s).

Mass Spectrometry:

CLK2 was subjected to proteolytic digest followed by mass spec analysis. The resulting MS/MS data verified CLK2 identity by comparison against the amino acid sequence(s) of the recombinant protein.

Protein sequence alignment with reference sequence(s)

GenBank Accession Number: NP_003984

1	MAPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	GDVKLTQMSA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	GST TAG
137	MAPILGYWKI	KGLVQPTRLL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	GDVKLTQMSA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	IVGN CLK2
											NP_003984
101	DIRYGVSRIA	YSKDFETLKV	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	KRIEAIPOID	KYLKSSSKYIA	
137	DIRYGVSRIA	YSKDFETLKV	DFLSKLPEML	KMFEDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	KRIEAIPOID	KYLKSSSKYIA	
201	WPLQGWQATF	GGGDHPPKSD	LVPR								
137	WPLQGWQATF	GGGDHPPKSD	LVPRHNQTSL	YKKAGTMRRA	KSVEDDAEGH	LIYHVGDWLQ	ERYEIVSTLG	EGTFGRVVQC	VDHRRGGGARV	ALKIINKNEK	
				RRR	KSVEDDAEGH	LIYHVGDWLQ	ERYEIVSTLG	EGTFGRVVQC	VDHRRGGGARV	ALKIINKNEK	
224											
200	YKEAARLEIN	VLEKINEKDP	DNKNLCVQMF	DWFDYHGHC	ISFELLGLST	FDFLKDNNYL	PYPYIHOVRHM	AFQLCQAVKF	LHDNKLTHTD	LKPENILFVN	
	YKEAARLEIN	VLEKINEKDP	DNKNLCVQMF	DWFDYHGHC	ISFELLGLST	FDFLKDNNYL	PYPYIHOVRHM	AFQLCQAVKF	LHDNKLTHTD	LKPENILFVN	
224											
401	SDYELTYNLE	KKRDRERSVKS	TAVRVVDFGS	ATFDHEHST	IVSTRHYRAP	EVILELGSWQ	PCDVWSIGCI	IFEYVVGFTL	FQTHDNREHL	AMMERILGPI	
300	SDYELTYNLE	KKRDRERSVKS	TAVRVVDFGS	ATFDHEHST	IVSTRHYRAP	EVILELGSWQ	PCDVWSIGCI	IFEYVVGFTL	FQTHDNREHL	AMMERILGPI	
224											
501	PSRMIRKTRK	QKYFYRGRLD	WDENTSAGRY	VRENCKPLRR	YLTSEAEHH	QLFDLIESML	EYEPAKRLTL	GEALQHPFFA	RLRAEPPNKL	WDSSRDISR	
400	PSRMIRKTRK	QKYFYRGRLD	WDENTSAGRY	VRENCKPLRR	YLTSEAEHH	QLFDLIESML	EYEPAKRLTL	GEALQHPFFA	RLRAEPPNKL	WDSSRDISR	

* highlighted residues denote differences from the reference protein sequence(s).

Anita Targosz

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Date: 12/Dec/2016

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