Certificate of Analysis

ProQinase TARGETING CANCER

Recombinant Proteins

CLK3

CDC-like kinase 3

Recombinant Human Active Protein Kinase

HGNC Symbol: CLK3

Synonyms: PHCLK3

Product No.: 0921-0000-1

Lot: 002

Description: Human CLK3, full length, amino acids M_1-R_{490} (as in NCBI/Protein entry NP_003983.2), untagged, expressed in Sf9 insect cells

Product identity: CLK3 Lot 002, was confirmed as CLK3 by mass spectroscopy LC-ESI-MS/MS

Theoretical $MW_{Fusion\ Protein}$: 59,157 Da

Expression host: Sf9 insect cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

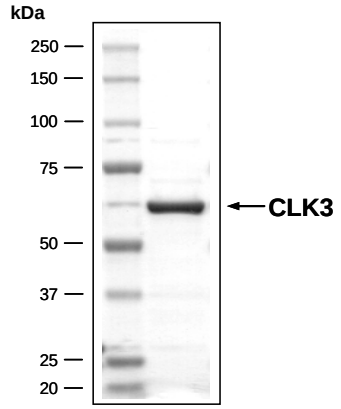
Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 20 % glycerol

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

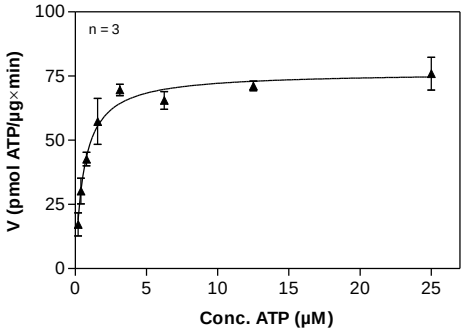
Biochemical Parameters:
Specific kinase activity (P_i transfer): 76 pmol/µg × min
ATP-K_M: 0.6 µM

CLK3 Lot 002:
Coomassie stain



2.0 µg CLK3

CLK3 Lot 002:
Determination of V_{max} and K_M value for ATP



Determination of K_M value & Specific activity:
- Assay conditions:
  60 mM HEPES-NaOH, pH 7.5
  3 mM $MgCl_2$
  3 mM $MnCl_2$
  3 µM Na-orthovanadate
  1.2 mM DTT
  50 µg/ml $PEG_{20.000}$
  ATP (variable)
  Substrate: RS-peptide 40 µg/ml
  Kinase: 0.2 µg/ml
- Filter binding assay

MSPH membrane (Millipore)

Additional assay technology:
CLK3 Lot 002 was also successfully tested by ProQinase for the use with the ADP-Glo™ Kinase assay from Promega
ADP-Glo assay conditions may vary from radiometric assay conditions, please inquire for assay details

ProQinase TARGETING CANCER

CLK3

Product No.: 0921-0000-1

CLK3 Recombinant Fusion Protein Amino Acid Sequence

1	GPLAMV**MHHC KRYRSPEPDP YLSYRWKRRR SYSREHEGRL RYPSRREPPP RRSRSRSHDR**	60
61	**LPYQRRYRER RDSDTYRCEE RSPSFGEDYY GPSRSRHRRR SRERGPYRTR KHAHHCHKRR**	120
121	**TRSCSSASSR SQQSSKRSSR SVEDDKEGHL VCRIGDWLQE RYEIVGNLGE GTFGKVVECL**	180
181	**DHARGKSQVA LKIIRNVGKY REAARLEINV LKKIKEKDKE NKFLCVLMSD WFNFHGHMCI**	240
241	**AFELLGKNTF EFLKENNFQP YPLPHVRHMA YQLCHALRFL HENQLTHTDL KPENILFVNS**	300
301	**EFETLYNEHK SCEEKSVKNT SIRVADFGSA TFDHEHHTTI VATRHYRPPE VILELGWAQP**	360
361	**CDVWSIGCIL FEYYRGFTLF QTHENREHLV MMEKILGPIP SHMIHRTRKQ KYFYKGGLVW**	420
421	**DENSSDGRYV KENCKPLKSY MLQDSLEHVQ LFDLMRRMLE FDPAQRITLA EALLHPFFAG**	480
481	**LTPEERSFHT SRNPSR**	540

1-6: legacy from 3C cleavage **blue**: CLK3

CLK3 wt[1] Amino Acid Sequence

1	**MHHCKRYRSP EPDPYLSYRW KRRRSYSREH EGRLRYPSRR EPPPRRSRSR SHDRLPYQRR**	60
61	**YRERRDSDTY RCEERSPSFG EDYYGPSRSR HRRRSRERGP YRTRKHAHHC HKRRTRSCSS**	120
121	**ASSRSQQSSK RSSRSVEDDK EGHLVCRIGD WLQERYEIVG NLGEGTFGKV VECLDHARGK**	180
181	**SQVALKIIRN VGKYREAARL EINVLKKIKE KDKENKFLCV LMSDWFNFHG HMCIAFELLG**	240
241	**KNTFEFLKEN NFQPYPLPHV RHMAYQLCHA LRFLHENQLT HTDLKPENIL FVNSEFETLY**	300
301	**NEHKSCEEKS VKNTSIRVAD FGSATFDHEH HTTIVATRHY RPPEVILELG WAQPCDVWSI**	360
361	**GCILFEYYRG FTLFQTHENR EHLVMMEKIL GPIPSHMIHR TRKQKYFYKG GLVWDENSSD**	420
421	**GRYVKENCKP LKSYMLQDSL EHVQLFDLMR RMLEFDPAQR ITLAEALLHP FFAGLTPEER**	480
481	**SFHTSRNPSR**	540

blue: CLK3 sequence expressed in recombinant protein

[1]NCBI/Protein accession number NP_003983.2

Recombinant Proteins