

ProQinase™ CDC7

Cell division cycle 7 homolog

Recombinant Human Protein Kinase

HGNC Symbol: CDC7

Synonyms: CDC7L1, HsCdc7, HsCDC7, Hsk1, huCdc7

Product No.: 1513-0000-1

Lot: 002

Description: Human CDC7, full length, amino acids M₁-L₅₇₄ (as in NCBI/Protein entry NP_003494.1), N-terminal GST-HIS₆ fusion protein with a 3C cleavage site, expressed in Sf9 insect cells

Theoretical MW_{GST-CDC7}: 91,978 Da

Expression: Baculovirus infected Sf9 cells

Purification: GST-Affinity Chromatography

Activation: This kinase was not activated by special procedures

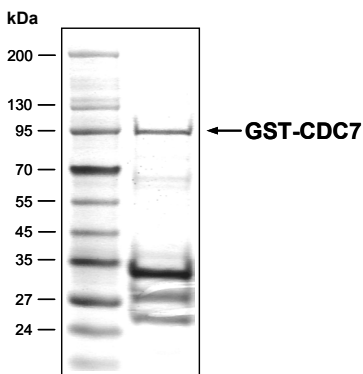
Storage buffer: 50 mM HEPES pH 7.5, 100 mM NaCl, 5 mM DTT, 15 mM reduced glutathione, 20% glycerol

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!

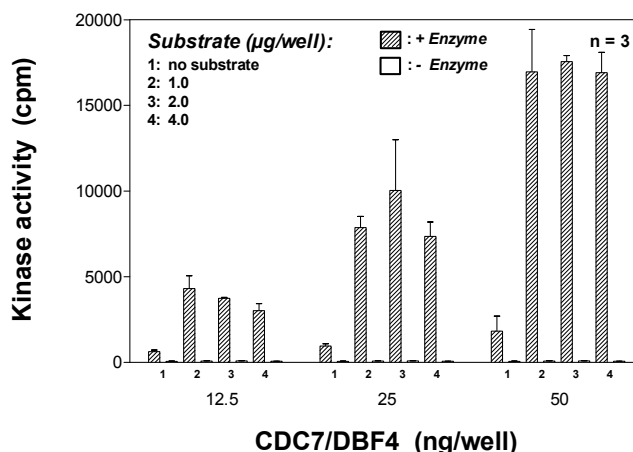
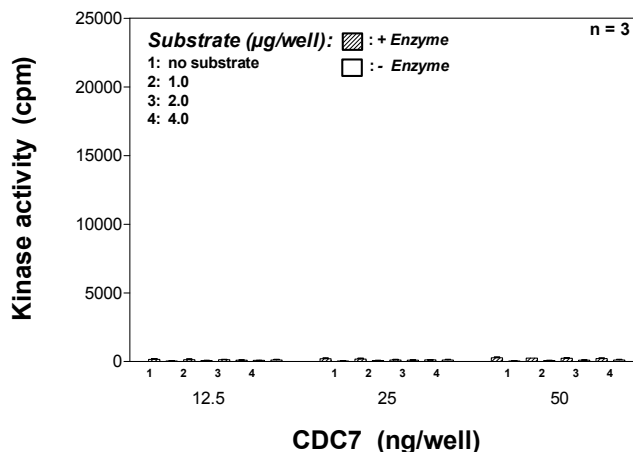
Protein concentration: 0.469 µg/µl (Bradford method using BSA [Sigma, cat# A-7638, Lot 79H7641] as standard protein)

CDC7 Lot 002:
Coomassie stain



2.0 µg GST-CDC7

Kinase activity CDC7 vs CDC7/DBF4:



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
- Substrate: Histone H1, 2.5-10 µg/ml
- Kinase: CDC7 or CDC7/DBF4 0.25-1 µg/ml]

Assay: ³³PanQinase® Assay

Recombinant Proteins

ProQinase™ CDC7

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Recombinant Proteins

CDC7 Recombinant Fusion Protein Amino Acid Sequence

1	MSPILGYWKI	KGLVQPTRL	LEYLEEKYEE	HLYERDEGDK	WRNKKFELGL	EFPNLPYYID	60
61	GDVKLTQSMA	IIRYIADKHN	MLGGCPKERA	EISMLEGAVL	DIRYGVSRIA	YSKDFETLKV	120
121	DFLSKLPEML	KMFKDRLCHK	TYLNGDHVTH	PDFMLYDALD	VVLYMDPMCL	DAFPKLVCFK	180
181	KRIEAIPOID	KYLKSSKYIA	WPLQGWQATF	GGGDHPPKSD	PMGHHHHHG	RDSLEVLFG	240
241	MEASLGIQM	DEPMFSPQR	DRFQAEGLK	KNEQNFKLAG	VKVDIEKLYE	AVPQLSNVFK	300
301	IEDKIGEGTF	SSVYLATAQL	QVGPEEKIAL	KHLIPTSHPI	RIAAELQCLT	VAGGQDNVMG	360
361	VKYCFRKNRH	VVIAMPYLEH	ESFLDILNSL	SFQEVREYML	NLFKALKRIH	QFGIVHRDVK	420
421	PSNFLYNRRL	KKYALVDFGL	AQGTHDTKIE	LLKFVQSEAQ	QERCSONKSH	IITGNKIPLS	480
481	GPVPKELDQQ	STTKASVKRP	YTNAQIQIKQ	GKDGKEGSVG	LSVQRSVFGE	RNFNIHSSIS	540
541	HESPAVKLMK	QSKTVDVLSR	KLATKKKAIS	TKVMNSAVMR	KTASSCPASL	TCDCYATDKV	600
601	CSICLSRRQQ	VAPRAGTPGF	RAPEVLTGCP	NQTTAIDMWS	AGVIFLSLLS	GRYPFYKASD	660
661	DLTALAQIMT	IRGSRETIQA	AKTFGKSILC	SKEVPAQDLR	KLCERLRGMD	SSTPKLTSDI	720
721	QGHASHQPAI	SEKTDHKASC	LVQTPPGQYS	GNSFKKGDSN	SCEHCFDEYN	TNLEGWNEVP	780
781	DEAYDLLDKL	LDLNPASRIT	AEALLHPFF	KDMSL			840

1-218: GST Red: HIS6-tag Green: 3C cleavage site blue: CDC7

CDC7 wt¹ Amino Acid Sequence

1	MEASLGIQMD	EPMAFSPQRD	RFQAEGLK	NEQNFKLAGV	KVDIEKLYEA	VPQLSNVFKI	60
61	EDKIGEGTFS	SVYLATAQLQ	VGPEEKIALK	HLIPTSHPIR	IAAELQCLTV	AGGQDNVMGV	120
121	KYCFRKNRHV	VIAMPYLEHE	SFLDILNSLS	FQEVREYMLN	LEKALKRIHQ	FGIVHRDVKP	180
181	SNFLYNRRLK	KYALVDFGLA	QGTHDTKIEL	LKFVQSEAQQ	ERCSONKSHI	ITGNKIPLSG	240
241	PVPKELDQOS	TTKASVKRPY	TNAQIQIKQG	KDGKEGSLGL	SVQRSVFGER	NFNIHSSISH	300
301	ESPAVKLMKQ	SKTVDVLSRK	LATKKKAIST	KVMNSAVMRK	TASSCPASLT	CDCYATDKVC	360
361	SICLSRRQQV	APRAGTPGFR	APEVLTGCPN	QTTAIDMWSA	GVIFLSLLSG	RYPFYKASDD	420
421	LTALAQIMTI	RGSRETIQAA	KTFGKSILCS	KEVPAQDLRK	LCERLRGMDS	STPKLTSDIQ	480
481	GHASHQPAIS	EKTDHKASCL	VQTPPGQYSG	NSFKKGDSNS	CEHCFDEYNT	NLEGWNEVPD	540
541	EAYDLLDKLL	DLNPASRITA	EEALLHPFFK	DMSL			600

blue: CDC7 sequence expressed in fusionprotein

¹NCBI/Protein accession number NP_003494.1