

Datasheet for ABIN3134914

CDK12 Protein (AA 1-1484) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	CDK12 (CRKRS)
Protein Characteristics:	AA 1-1484
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CDK12 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MPNSERHGGK KDGSGGASGT SQPSSGGGSS NSRERHRLVS KHKRHKSKHS KDVGLVTPEA</p> <p>ASLGTIIKPL VEYDDISSDS DTFSDDTAFK SDRRENEERR GTDRSDRLHR HRHHQHRRSR</p> <p>DLLKTKQTEK EKNQEVSKSG SMKDRVSGSS KRSVEGSDDY GKAQLSKSGS KESRSSKMHK</p> <p>EKTRKERELK SGYKDRSKSH RKRETPKSYK TVASPKRRSR SPHRKWSDDSS KQDDSPSGAS</p> <p>YGQDYDLSP RSHTSSNYDS YKKSPGSTSR RQSISPPYKE PSAYQSSTRS PSPYSRRQRS</p> <p>VSPYSRRRSS SYERGSYSG RSPSPYGRRR SSSPFLSKRS LSRSPGPSRK SMKSRSRSPA</p> <p>YSRHSSSHSK KKRSGRSRSH SSISPVRLPL NSSLGAELSR KKKERAAAAA AAKMDGKESK</p> <p>SSPIILPKKE KLEVKESGLE SKKLPRSIKS EKSTPDTELV TVAHSNPEVK HCLDTGKVRL</p> <p>DENLQKHPAK DLKAQGTKDV KPVAPKEVIV TSKETETSEK ETLPLPTIT SPPPLPATTP</p> <p>PPQTPPLPPL PPLPAIPLQP PLPPPQPPFS QVPVSSTSIL PSSPHRTST LSSQTNSQPP</p> <p>VQVSMKTQVS ITAAIPLHKT STLPPLPLPP LLPGDDDMDS PKETLPSKPA KKEKEQRTRH</p> <p>LLTDLPLPPE LPGGDPSPPD SPEPKAITPP QQPYKKRPKI CCPRYGERRQ TESDWGKRCV</p>
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DKFDIIGIG EGTYGQVYKA KDKDTGELVA LKKVRLDNEK EGFPITAIRE IKILRQLVHQ
SVVNMKEIVT DKQDALDFKK DKGAFYLVFE YMDHDLMLLL ESGLVHFSKD HIKSFMKQLM
EGLDYCHKKN FLHRDIKCSN ILLNNSGQIK LADFLGLARLY NSEESRPYTN KVITLWYRPP
ELLLGEERYT PAIDVWSCGC ILGELFTKKP IFQANLELAQ LELISRLCGS PCPAVWPDVI
KLPYFNTMKP KKQYRRRLRE EFSFIPSAAL DLLDHMLTLD PSKRCTAEQT LQSDFLKDVE
LSKMAPPDLP HWQDCHELWS KKRRRQRQSG IVIEDPPPSK ASRKETTSGT TAEPVKNNSP
APPQPAPVKA EPGPGDAVGL GDITQQLNQS ELAVLLNLLQ SQTDLSPQM AQLLNHSNP
EMQQQLEALN QSISALTEAS SQQQDSESA PEESLKEVPS VPVVLPPAEQ TTPEASNTPA
DMQNVLAVLL SQLMKTQEPG GNLEENTNDK NSGPQGPRT PTMPQEEAAA CPPHILPPEK
RPPEPPGPPP PPPPPPLVEG DLSSAPQELN PAVTAALLQL LSQPEAEPPG HLPHEHQALR
PMEYSTRSHP NRTYGNTDGP ETGFSSADTD ERSSGPALTE SLVQTPVKNR TFGSGVSHLG
ESNSYQGTGS VQFPGDQDLR FTRVPLALHS VVGQPFLLKSE GNSNSVWHA ETKLQNYGELG
PGTTGANSSG TTLQWGGPAQ SYGKPYRGAA RVLPRGGRGR GVPY

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Cdk12 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use

Product Details

	the ExPASy's protParam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	CDK12 (CRKRS)
Alternative Name:	Cdk12 (CRKRS Products)
Background:	Cyclin-dependent kinase that phosphorylates the C-terminal domain (CTD) of the large subunit of RNA polymerase II (POLR2A), thereby acting as a key regulator of transcription elongation. Regulates the expression of genes involved in DNA repair and is required for the maintenance of genomic stability. Preferentially phosphorylates 'Ser-5' in CTD repeats that are already phosphorylated at 'Ser-7', but can also phosphorylate 'Ser-2'. Required for RNA splicing, possibly by phosphorylating SRSF1/SF2. Involved in regulation of MAP kinase activity, possibly leading to affect the response to estrogen inhibitors. {ECO:0000269 PubMed:22012619}.
Molecular Weight:	164.6 kDa Including tag.
UniProt:	Q14AX6

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher

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molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process