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# CDK13 Protein (AA 1-1512) (His tag)





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### Overview

Quantity:	1 mg
Target:	CDK13
Protein Characteristics:	AA 1-1512
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CDK13 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

### **Product Details**

Sequence:

MPSSSDTALG GGGGLSWAEK KLEERRKRRR FLSPQQPPLL LPLLQPQLLQ PPPPPPPLLF
LAAPGTAAAA AAAAAASSSC FSPGPPLEVK RLARGKRRAG GRQKRRRGPR AGQEAEKRRV
FSLPQPQQDG GGGASSGGGV TPLVEYEDVS SQSEQGLLLG GASAATAATA AGGTGGSGGS
PASSSGTQRR GEGSERRPRR DRRSSSGRSK ERHREHRRRD GQRGGSEASK SRSRHSHSGE
ERAEVAKSGS SSSSGGRRKS ASATSSSSSS RKDRDSKAHR SRTKSSKEPP SAYKEPPKAY
REDKTEPKAY RRRRSLSPLG GRDDSPVSHR ASQSLRSRKS PSPAGGGSSP YSRRLPRSPS
PYSRRRSPSY SRHSSYERGG DVSPSPYSSS SWRRSRSPYS PVLRRSGKSR SRSPYSSRHS
RSRSRHRLSR SRSRHSSISP STLTLKSSLA AELNKNKKAR AAEAARAAEA AKAAEATKAA
EAAAKAAKAS NTSTPTKGNT ETSASASQTN HVKDVKKIKI EHAPSPSSGG TLKNDKAKTK
PPLQVTKVEN NLIVDKATKK AVIVGKESKS AATKEESVSL KEKTKPLTPS IGAKEKEQHV
ALVTSTLPPL PLPPMLPEDK EADSLRGNIS VKAVKKEVEK KLRCLLADLP LPPELPGGDD
LSKSPEEKKT ATQLHSKRRP KICGPRYGET KEKDIDWGKR CVDKFDIIGI IGEGTYGQVY

KARDKDTGEM VALKKVRLDN EKEGFPITAI REIKILRQLT HQSIINMKEI VTDKEDALDF
KKDKGAFYLV FEYMDHDLMG LLESGLVHFN ENHIKSFMRQ LMEGLDYCHK KNFLHRDIKC
SNILLNNRGQ IKLADFGLAR LYSSEESRPY TNKVITLWYR PPELLLGEER YTPAIDVWSC
GCILGELFTK KPIFQANQEL AQLELISRIC GSPCPAVWPD VIKLPYFNTM KPKKQYRRKL
REEFVFIPAA ALDLFDYMLA LDPSKRCTAE QALQCEFLRD VEPSKMPPPD LPLWQDCHEL
WSKKRRRQKQ MGMTDDVSTI KAPRKDLSLG LDDSRTNTPQ GVLPSSQLKS QGSSNVAPVK
TGPGQHLNHS ELAILLNLLQ SKTSVNMADF VQVLNIKVNS ETQQQLNKIN LPAGILATGE
KQTDPSTPQQ ESSKPLGGIQ PSSQTIQPKV ETDAAQAAVQ SAFAVLLTQL IKAQQSKQKD
VLLEERENGS GHEASLQLRP PPEPSTPVSG QDDLIQHQDM RILELTPEPD RPRILPPDQR
PPEPPEPPV TEEDLDYRTE NQHVPTTSSS LTDPHAGVKA ALLQLLAQHQ PQDDPKREGG
IDYQAGDTYV STSDYKDNFG SSSFSSAPYV SNDGLGSSSA PPLERRSFIG NSDIQSLDNY
STASSHSGGP PQPSAFSESF PSSVAGYGDI YLNAGPMLFS GDKDHRFEYS HGPIAVLANS
SDPSTGPEST HPLPAKMHNY NYGGNLQENP SGPSLMHGQT WTSPAQGPGY SQGYRGHIST
STGRGRGRGL PY

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.
- Human CDK13 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 receival 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.

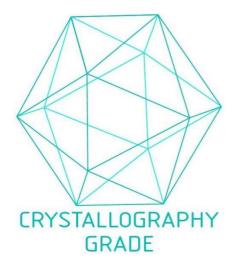
## **Product Details**

	The concentration of the protein is calculated using its specific absorption coefficient. We use
	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:
	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.
	<ol><li>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.</li></ol>
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:	CDK13
Alternative Name:	CDK13 (CDK13 Products)
Background:	Cyclin-dependent kinase which displays CTD kinase activity and is required for RNA splicing.
	Has CTD kinase activity by hyperphosphorylating the C-terminal heptapeptide repeat domain
	(CTD) of the largest RNA polymerase II subunit RPB1, thereby acting as a key regulator of
	transcription elongation. Required for RNA splicing, probably by phosphorylating SRSF1/SF2.
	Required during hematopoiesis. In case of infection by HIV-1 virus, interacts with HIV-1 Tat
	protein acetylated at 'Lys-50' and 'Lys-51', thereby increasing HIV-1 mRNA splicing and
	promoting the production of the doubly spliced HIV-1 protein Nef.
	{ECO:0000269 PubMed:16721827, ECO:0000269 PubMed:1731328,
	ECO:0000269 PubMed:18480452, ECO:0000269 PubMed:20952539}.
Molecular Weight:	165.9 kDa Including tag.
UniProt:	Q14004
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 gurante

# **Application Details**

	though.
Comment:	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 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	

# Images



**Image 1.** "Crystallography Grade" protein due to multi-step, protein-specific purification process