

## Datasheet for ABIN3096406 WEE1 Protein (AA 1-646) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	WEE1
Protein Characteristics:	AA 1-646
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This WEE1 protein is labelled with His tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS), Crystallization (Crys)

#### Product Details

Sequence:	<p>MSFLSRQPP PPRRAGAACT LRQKLIFSPC SDCEEEEEEE EEEGSGHSTG EDSAFQEPDS</p> <p>PLPPARSPTE PGPERRRSPG PAPGSPGELE EDLLLPGACP GADEAGGGAE GDSWEEEGFG</p> <p>SSSPVKSPAA PYFLGSSFSP VRCGGPGDAS PRGCGARRAG EGRRSPRPDH PGTPPHKTFR</p> <p>KLRLFDTPHT PKSLLSKARG IDSSSVKLRG SSLFMDTEKS GKREFDVRQT PQVNINPFTP</p> <p>DSLHLHSSGQ CRRRKRTYWN DSCGEDMEAS DYELEDTRP AKRITITESN MKSRYTTEFH</p> <p>ELEKIGSGEF GSVFKCVKRL DGCYIAIKRS KKPLAGSVDE QNALREVYAH AVLQGHSHVV</p> <p>RYFSAWAEDD HMLIQNEYN GGLADAISE NYRIMSYFKE AELKDLLLQV GRGLRYIHSM</p> <p>SLVHMDIKPS NIFISRTSIP NAASEEGDED DWASNKVMFK IGDLGHVTRI SSPQVEEGDS</p> <p>RFLANEVLQE NYTHLPKADI FALALTVVCA AGAEPLPRNG DQWHEIRQGR LPRIPQVLSQ</p> <p>EFTELLKVM IHPDPERRPSA MALVKHSVLL SASRKSAEQL RIELNAEKFK NSLLQKELKK</p> <p>AQMAKAAAE RALFTDRMAT RSTTQSNRTS RLIGKKMNRS VSLTIY</p>
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**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 WEE1 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 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.
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:	WEE1
Alternative Name:	WEE1 ( <a href="#">WEE1 Products</a> )
Background:	Acts as a negative regulator of entry into mitosis (G2 to M transition) by protecting the nucleus from cytoplasmically activated cyclin B1-complexed CDK1 before the onset of mitosis by mediating phosphorylation of CDK1 on 'Tyr-15'. Specifically phosphorylates and inactivates cyclin B1-complexed CDK1 reaching a maximum during G2 phase and a minimum as cells enter M phase. Phosphorylation of cyclin B1-CDK1 occurs exclusively on 'Tyr-15' and phosphorylation of monomeric CDK1 does not occur. Its activity increases during S and G2 phases and decreases at M phase when it is hyperphosphorylated. A correlated decrease in protein level occurs at M/G1 phase, probably due to its degradation.
Molecular Weight:	72.6 kDa Including tag.
UniProt:	<a href="#">P30291</a>
Pathways:	<a href="#">Cell Division Cycle</a> , <a href="#">Mitotic G1-G1/S Phases</a> , <a href="#">M Phase</a>

## 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:	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)



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