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Datasheet for ABIN3136275  
**LRWD1 Protein (AA 1-648) (Strep Tag)**

### Overview

Quantity:	1 mg
Target:	LRWD1
Protein Characteristics:	AA 1-648
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This LRWD1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Sequence: MAPLTPQLLL QRGRPKTDKL GKIQSLNLSG LQLLSEHLDP NLLGRLKCLR ELDLSNNLLE  
TLPANLGLSH LRILRCTNNQ LGDVTALHQF PELEELNLEG NPFLTVSDNL KVSFLLPKLR  
KVNGKDTAST CSQVENLDRE LMDRVTAHWQ KFIATVSPEE ETDKVRADFM RSAVRDVCYG  
PESLIEFTQW RVRMIAEELV ASGGAQVQDA KVPVEHPQAA GASKFRAREV ASKRP GKDPV  
TLPPSKRVRA LPPAQAEQSP MGADGGQAAL HLEPLHFLQC HSRNNSPKDL ETQLWACAFE  
PAREEGHSRA TSQTVATCGG EAVCVIDCQT GLVLHXYKVP GEEFFSVAWT ALT VVTQAGH  
KKRWNMLAAA GLRGMVRLH VRAGFCCSVI RAHKKAIATL CFSPSHETHL FTASYDKRII  
LWDIGVPNQD YKFQASQLL LNCGSVPLRL CPVATCPDDF LLAGCEGGCY CWDVRLDQPQ  
KQRVCEVNFV FSEDSKVSGQ RVDGLAFVNE DVVASKGSGQ GTIYLWSWSQ TWAGRGRQSV  
LPVVILVRLQ WSPTNLAYFS LSTCPGKNLV LCGDEEGSVW IYDVEHLLKE PPQATTLQPP  
TQILKWPQPT ALGQPVTKTM INTVVANA AF TYLTALTDSN IVSIWRRC

**Sequence without tag. The proposed Strep-Tag is based on experience s with the expression**

**system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

#### Concentration:

- 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.
- We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

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### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag
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## Product Details

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- capture material. 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:  $\geq 80\%$  as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Endotoxin Level: Low Endotoxin less than 1 EU/mg ( $< 0.1$  ng/mg)

## Target Details

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Target: LRWD1

Alternative Name: LRWD1 ([LRWD1 Products](#))

Background: Leucine-rich repeat and WD repeat-containing protein 1 (ORC-associated protein) (ORCA) (Origin recognition complex-associated protein),FUNCTION: Required for G1/S transition. Recruits and stabilizes the origin recognition complex (ORC) onto chromatin during G1 to establish pre-replication complex (preRC) and to heterochromatic sites in post-replicated cells. Binds a combination of DNA and histone methylation repressive marks on heterochromatin. Binds histone H3 and H4 trimethylation marks H3K9me3, H3K27me3 and H4K20me3 in a cooperative manner with DNA methylation (By similarity). Required for silencing of major satellite repeats. May be important ORC2, ORC3 and ORC4 stability. {ECO:0000250, ECO:0000269|PubMed:22427655}.

Molecular Weight: 71.6 kDa

UniProt: [Q8BUI3](#)

Pathways: [Chromatin Binding](#)

## Application Details

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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: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

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## Application Details

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Restrictions: For Research Use only

## Handling

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Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)