

# **Product datasheet**

info@arigobio.com

# ARG41997 anti-CDT1 / Dup antibody

Package: 100 μl Store at: -20°C

### **Summary**

Product Description Rabbit Polyclonal antibody recognizes CDT1 / Dup

Tested Reactivity Hu

Tested Application ICC/IF, IHC-P, IP, WB

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name CDT1 / Dup

Species Human

Immunogen Synthetic peptide of Human CDT1 / Dup.

Conjugation Un-conjugated

Alternate Names DUP; DNA replication factor Cdt1; RIS2; Double parked homolog

## **Application Instructions**

| Application table | Application  | Dilution       |
|-------------------|--|----------------|
|                   | ICC/IF   | 1:50 - 1:200   |
|                   | IHC-P  | 1:50 - 1:200   |
|                   | IP   | 1:50           |
|                   | WB   | 1:500 - 1:1000 |
| Application Note  | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |                |
| Positive Control  | HEK293   |                |
| Observed Size     | ~ 65 kDa   |                |

#### **Properties**

| Form                | Liquid  |  |
|---------------------|---|--|
| Purification        | Affinity purified.  |  |
| Buffer              | PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.   |  |
| Preservative        | 0.02% Sodium azide  |  |
| Stabilizer          | 50% Glycerol  |  |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |  |

#### Bioinformation

Gene Symbol CDT1

Gene Full Name chromatin licensing and DNA replication factor 1

Background The protein encoded by this gene is involved in the formation of the pre-replication complex that is

necessary for DNA replication. The encoded protein can bind geminin, which prevents replication and

may function to prevent this protein from initiating replication at inappropriate origins.

Phosphorylation of this protein by cyclin A-dependent kinases results in degradation of the protein.

[provided by RefSeq, Mar 2011]

Function Cooperates with CDC6 to promote the loading of the mini-chromosome maintenance complex onto

chromatin to form the pre-replication complex necessary to initiate DNA replication. Binds DNA in a

sequence-, strand-, and conformation-independent manner. Potential oncogene. [UniProt]

Calculated Mw 60 kDa

PTM Two independent E3 ubiquitin ligase complexes, SCF(SKP2) and the DCX(DTL) complex, mediated CDT1

degradation in S phase. Ubiquitinated by the DCX(DTL) complex, in response to DNA damage, leading to its degradation. Ubiquitination by the DCX(DTL) complex is necessary to ensure proper cell cycle regulation and is PCNA-dependent: interacts with PCNA via its PIP-box, while the presence of the containing the 'K+4' motif in the PIP box, recruit the DCX(DTL) complex, leading to its degradation. Phosphorylation at Thr-29 by CDK2 targets CDT1 for ubiquitination by SCF(SKP2) E3 ubiquitin ligase and subsequent degradation (PubMed:14993212). The interaction with GMNN protects it against

ubiquitination. Deubiquitinated by USP37 (PubMed:27296872).

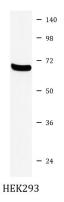
Phosphorylation by cyclin A-dependent kinases at Thr-29 targets CDT1 for ubiquitynation by SCF(SKP2) E3 ubiquitin ligase and subsequent degradation (PubMed:14993212). Phosphorylated at Thr-29 by MAPK8/JNK1, which blocks replication licensing in response to stress (PubMed:21856198). Binding to

GMNN is not affected by phosphorylation. [UniProt]

Cellular Localization Nucleus. Chromosome, centromere, kinetochore. Note=Transiently localizes to kinetochores during

prometaphase and metaphase. [UniProt]

#### **Images**



#### ARG41997 anti-CDT1 / Dup antibody WB image

Western blot:  ${\sf HEK293}$  cell lysate stained with ARG41997 anti-CDT1 /  ${\sf Dup}$  antibody.