**Product datasheet**

**Anti-CDT1/DUP antibody ab70829**

4 Abreviews 7 References 3 Images

**Overview**

- **Product name**: Anti-CDT1/DUP antibody
- **Description**: Rabbit polyclonal to CDT1/DUP
- **Host species**: Rabbit
- **Tested applications**: Suitable for: IP, IHC-P, ICC/IF, WB
- **Species reactivity**: Reacts with: Mouse, Human
  - Predicted to work with: Chimpanzee
- **Immunogen**: Synthetic peptide corresponding to Human CDT1/DUP (C terminal).
  - Database link: NP_112190.1
- **Positive control**: HeLa and 293T whole cell lysates.

**Properties**

- **Form**: Liquid
- **Storage instructions**: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
- **Storage buffer**: Preservative: 0.09% Sodium azide
  - Constituents: 1.764% Sodium citrate, 1.815% Tris, 0.021% PBS
- **Purity**: Immunogen affinity purified
- **Purification notes**: ab70829 was affinity purified using an epitope specific to CDT1/DUP immobilized on solid support.
- **Clonality**: Polyclonal
- **Isotype**: IgG

**Applications**

Our Abpromise guarantee covers the use of ab70829 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>IP</td>
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<td>Use at 2-5 µg/mg of lysate.</td>
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</table>
### 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.

### Sequence similarities
Belongs to the Cdt1 family.

### Developmental stage
Present during G1 and early S phase of the cell cycle. Degraded during the late S, G2, and M phases.

### Domain
The PIP-box K+4 motif mediates both the interaction with PCNA and the recruitment of the DCX(DTL) complex: while the PIP-box interacts with PCNA, the presence of the K+4 submotif recruits the DCX(DTL) complex, leading to its ubiquitination.

### Post-translational modifications
Ubiquitinated by the DCX(DTL) complex, also named CRL4(CDT2) 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. The interaction with GMNN protects it against ubiquitination. Phosphorylated by cyclin A-dependent kinases which results in the binding of CDT1 to the F-box protein SKP2 and subsequent degradation. Binding to GMNN is not affected by phosphorylation.

### Cellular localization
Nucleus.

### Images

**Western blot - Anti-CDT1/DUP antibody (ab70829)**

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<tr>
<td>IHC-P</td>
<td>1/1000 - 1/5000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
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<tr>
<td>ICC/IF</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>WB</td>
<td>1/1000 - 1/2500. Detects a band of approximately 63 kDa (predicted molecular weight: 63 kDa).</td>
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**All lanes**: Anti-CDT1/DUP antibody (ab70829) at 1 µg/ml

**Lane 1**: HeLa whole cell lysate at 50 µg
**Lane 2**: HeLa whole cell lysate at 15 µg
**Lane 3**: HeLa whole cell lysate at 5 µg
**Lane 4**: 293T whole cell lysate at 50 µg

Developed using the ECL technique.

**Predicted band size**: 63 kDa
**Observed band size**: 63 kDa
Exposure time: 3 minutes

Secondary antibody - anti-rabbit HRP (ab6721)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human islet cell carcinoma tissue labelling CDT1/DUP with ab70829 at 1/1000 (1µg/ml). Detection: DAB.

Detection of CDT1/DUP by Western Blot of Immunprecipitate. ab70829 at 1µg/ml staining CDT1/DUP in HeLa whole cell lysate immunoprecipitated using ab70829 at 3µg/mg lysate (1 mg/IP; 20% of IP loaded/lane).

Secondary antibody anti-rabbit HRP (ab6721)

Detection: Chemiluminescence with exposure time of 3 minutes.

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