**Overview**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-CtIP antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit polyclonal to CtIP</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: WB, IP</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Human</td>
</tr>
<tr>
<td></td>
<td>Predicted to work with: Pig, Chimpanzee, Baboon, Rhesus monkey, Orangutan</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide within Human CtIP aa 850-897 (C terminal). The exact sequence is proprietary. (NP_002885.1). Database link: Q99708</td>
</tr>
<tr>
<td>Positive control</td>
<td>MCF7 and HeLa whole cell lysate (ab150035).</td>
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</tbody>
</table>

**Properties**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
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<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.</td>
</tr>
<tr>
<td>Storage buffer</td>
<td>Preservative: 0.09% Sodium azide Constituents: 1.815% Tris, 1.764% Sodium citrate, 0.021% PBS</td>
</tr>
<tr>
<td>Purity</td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td>Clonality</td>
<td>Polyclonal</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG</td>
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**Applications**

Our Abpromise guarantee covers the use of ab70163 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>WB</td>
<td>1/1000 - 1/5000</td>
<td>Detects a band of approximately 150 kDa (predicted molecular weight: 102 kDa).</td>
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</tbody>
</table>
Function
Endonuclease that cooperates with the MRE11-RAD50-NBN (MRN) complex in processing meiotic and mitotic double-strand breaks (DSBs) by ensuring both resection and intrachromosomal association of the broken ends. Functions downstream of the MRN complex and ATM, promotes ATR activation and its recruitment to DSBs in the S/G2 phase facilitating the generation of ssDNA. Component of the BRCA1-RBBP8 complex that regulates CHEK1 activation and controls cell cycle G2/M checkpoints on DNA damage. Promotes microhomology-mediated alternative end joining (A-NHEJ) during class-switch recombination and plays an essential role in chromosomal translocations.

Involvement in disease
Seckel syndrome 2
Jawad syndrome
Genetic variability in RBBP8 is noted as a factor in BRCA1-associated breast cancer risk (PubMed:21799032). Exhibits sensitivity to tamoxifen in certain breast cancer cell lines (PubMed:18171986).

Sequence similarities
Belongs to the COM1/SAE2/CtIP family.

Domain
The PXDLS motif binds to a cleft in CtBP proteins.
The damage-recruitment motif is required for DNA binding and translocation to sites of DNA damage.

Post-translational modifications
Acetylated. Deacetylation by SIRT6 upon DNA damage promotes DNA end resection.
Hyperphosphorylation upon ionizing radiation results in dissociation from BRCA1.
Phosphorylation at Thr-847 by CDK1 is essential for the recruitment to DNA and the DNA repair function. Phosphorylated on Ser-327 as cells enter G2 phase. This phosphorylation is required for binding BRCA1 and for the G2/M DNA damage transition checkpoint control.
Ubiquitinated (PubMed:14654780, PubMed:16818604). Ubiquitination at multiple sites by BRCA1 (via its N-terminal RING domain) does not lead to its proteosomal degradation but instead the ubiquitinated RBBP8 binds to chromatin following DNA damage and may play a role in G2/M checkpoint control (PubMed:16818604). Ubiquitinated by RNF138 at its N-terminus (PubMed:26502057).

Cellular localization

<table>
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</thead>
<tbody>
<tr>
<td>IP</td>
<td>Use at 2 µg/mg of lysate.</td>
<td></td>
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</table>
Western blot - Anti-CtIP antibody (ab70163)

All lanes: Anti-CtIP antibody (ab70163) at 1 µg/ml

Lane 1: MCF7 whole cell lysate at 50 µg
Lane 2: MCF7 whole cell lysate at 15 µg
Lane 3: MCF7 whole cell lysate at 5 µg
Lane 4: HeLa whole cell lysate at 50 µg

Predicted band size: 102 kDa
Observed band size: 150 kDa

why is the actual band size different from the predicted?

Immunoprecipitation - Anti-CtIP antibody (ab70163)

CtIP was immunoprecipitated from 293T cells using NETN lysis buffer with ab70163 at 2ug/mg of lysate.

Chemiluminescence with an exposure time: 3 minutes

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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