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# RBBP8 / CTIP Antibody (Internal)
**Rabbit Polyclonal Antibody**
**Catalog # ALS13940**

## Specification

### RBBP8 / CTIP Antibody (Internal) - Product Information

| | |
|---|---|
| Application | **IF, WB, IHC** |
| Primary Accession | Q99708 |
| Reactivity | **Human, Mouse, Rat** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Calculated MW | **102kDa KDa** |

### RBBP8 / CTIP Antibody (Internal) - Additional Information

**Gene ID** 5932

**Other Names**
DNA endonuclease RBBP8, 3.1.-.-, CtBP-interacting protein, CtIP, Retinoblastoma-binding protein 8, RBBP-8, Retinoblastoma-interacting protein and myosin-like, RIM, Sporulation in the absence of SPO11 protein 2 homolog, SAE2, RBBP8, CTIP

**Target/Specificity**
Human RBBP8

**Reconstitution & Storage**
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

**Precautions**
RBBP8 / CTIP Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

### RBBP8 / CTIP Antibody (Internal) - Protein Information

**Name** RBBP8

**Synonyms** CTIP

**Function**
Endonuclease that cooperates with the MRE11-RAD50-NBN (MRN) complex in DNA-end resection, the first step of double-strand break (DSB) repair through the homologous recombination (HR) pathway (PubMed:<a href="http://www.uniprot.org/citations/17965729" target="_blank">17965729</a>, PubMed:<a href="http://www.uniprot.org/citations/19202191" target="_blank">19202191</a>, PubMed:<a href="http://www.uniprot.org/citations/19759395" target="_blank">19759395</a>, PubMed:<a href="http://www.uniprot.org/citations/20064462" target="_blank">20064462</a>, PubMed:<a href="http://www.uniprot.org/citations/26721387" target="_blank">26721387</a>). HR is restricted to S and G2 phases of the cell cycle and preferentially repairs DSBs resulting from replication fork collapse (PubMed:<a

href="http://www.uniprot.org/citations/17965729" target="_blank">17965729</a>, PubMed:<a href="http://www.uniprot.org/citations/19202191" target="_blank">19202191</a>). Key determinant of DSB repair pathway choice, as it commits cells to HR by preventing classical non-homologous end-joining (NHEJ) (PubMed:<a href="http://www.uniprot.org/citations/19202191" target="_blank">19202191</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/16581787" target="_blank">16581787</a>, PubMed:<a href="http://www.uniprot.org/citations/17965729" target="_blank">17965729</a>, PubMed:<a href="http://www.uniprot.org/citations/19759395" target="_blank">19759395</a>, PubMed:<a href="http://www.uniprot.org/citations/20064462" target="_blank">20064462</a>). Component of the BRCA1-RBBP8 complex that regulates CHEK1 activation and controls cell cycle G2/M checkpoints on DNA damage (PubMed:<a href="http://www.uniprot.org/citations/15485915" target="_blank">15485915</a>, PubMed:<a href="http://www.uniprot.org/citations/16818604" target="_blank">16818604</a>). During immunoglobulin heavy chain class-switch recombination, promotes microhomology-mediated alternative end joining (A-NHEJ) and plays an essential role in chromosomal translocations (By similarity). Binds preferentially to DNA Y-junctions and to DNA substrates with blocked ends and promotes intermolecular DNA bridging (PubMed:<a href="http://www.uniprot.org/citations/30601117" target="_blank">30601117</a>).

**Cellular Location**
Nucleus. Chromosome. Note=Associates with sites of DNA damage in S/G2 phase (PubMed:10764811, PubMed:25349192). Ubiquitinated RBBP8 binds to chromatin following DNA damage (PubMed:16818604)

**Tissue Location**
Expressed in ER-positive breast cancer lines, but tends to be down-regulated ER-negative cells (at protein level)

**Volume**
250 µl

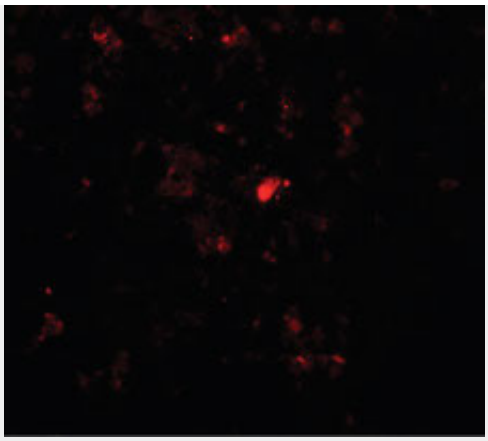
## RBBP8 / CTIP Antibody (Internal) - Protocols

Provided below are standard protocols that you may find useful for product applications.

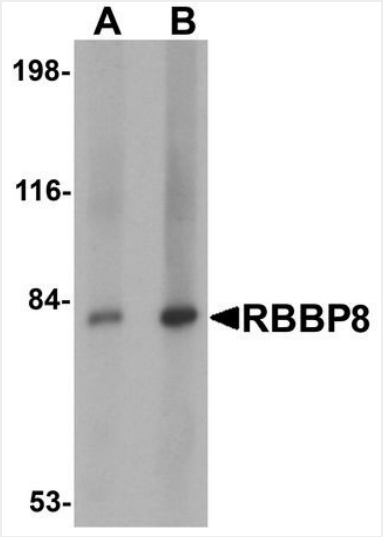
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## RBBP8 / CTIP Antibody (Internal) - Images

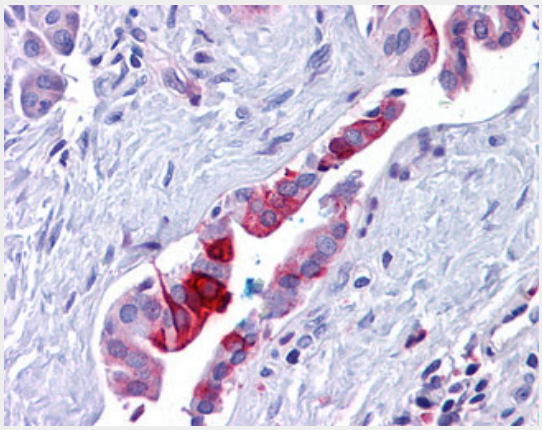
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Immunofluorescence of RBBP8 in rat spleen tissue with RBBP8 antibody at 20 ug/ml.




Western blot analysis of RBBP8 in mouse spleen tissue lysate with RBBP8 antibody at (A) 1 and...



Anti-RBBP8 / CTIP antibody IHC of human pancreas, duct.

**RBBP8 / CTIP Antibody (Internal) - Background**

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.

**RBBP8 / CTIP Antibody (Internal) - References**

Fusco C.,et al.Genomics 51:351-358(1998).
Schaeper U.,et al.J. Biol. Chem. 273:8549-8552(1998).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Nusbaum C.,et al.Nature 437:551-555(2005).