

# Anti-CTIP (pS327) Antibody

Rabbit polyclonal antibody to CTIP (pS327) Catalog # AP59933

## **Product Information**

Application	WB
Primary Accession	<u>Q99708</u>
Other Accession	<u>Q80YR6</u>
Reactivity	Human, Mouse, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	101942

### **Additional Information**

Gene ID	5932
Other Names	CTIP; DNA endonuclease RBBP8; 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
Target/Specificity	Recognizes endogenous levels of CTIP (pS327) protein.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

#### **Protein Information**

Name	RBBP8
Synonyms	СТІР
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: <u>17965729</u> , PubMed: <u>19202191</u> , PubMed: <u>19759395</u> , PubMed: <u>20064462</u> , PubMed: <u>23273981</u> , PubMed: <u>26721387</u> , PubMed: <u>27814491</u> , PubMed: <u>27889449</u> , PubMed: <u>30787182</u> ). HR is restricted to S and G2 phases of the cell cycle and preferentially repairs DSBs resulting from replication fork collapse (PubMed: <u>17965729</u> , PubMed: <u>19202191</u> , PubMed: <u>23273981</u> , PubMed: <u>27814491</u> , PubMed: <u>27889449</u> , PubMed: <u>30787182</u> ). Key determinant of DSB repair pathway choice, as it commits cells to HR by preventing classical

	non-homologous end-joining (NHEJ) (PubMed: <u>19202191</u> ). Specifically promotes the endonuclease activity of the MRN complex to clear DNA ends containing protein adducts: recruited to DSBs by NBN following phosphorylation by CDK1, and promotes the endonuclease activity of MRE11 to clear protein-DNA adducts and generate clean double-strand break ends (PubMed: <u>27814491</u> , PubMed: <u>27889449</u> , PubMed: <u>30787182</u> , PubMed: <u>33836577</u> ). 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: <u>16581787</u> , PubMed: <u>17965729</u> , PubMed: <u>19759395</u> , PubMed: <u>20064462</u> ). Component of the BRCA1-RBBP8 complex that regulates CHEK1 activation and controls cell cycle G2/M checkpoints on DNA damage (PubMed: <u>15485915</u> , PubMed: <u>16818604</u> ). 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: <u>30601117</u> ).
Cellular Location	Nucleus. Chromosome Note=Associates with sites of DNA damage in S/G2 phase (PubMed:10764811, PubMed:25349192). Recruited to DSBs by the MRE11- RAD50-NBN (MRN) complex following phosphorylation by CDK1, which promotes interaction with NBN (PubMed:27814491, PubMed:27889449, PubMed:33836577). 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)

## Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CTIP (pS327). The exact sequence is proprietary.

#### Images



Western blot analysis of CTIP (pS327) expression in U87 (A), PC3 (B), MCF7 (C) whole cell lysates.



Direct ELISA antibody dose-response curve using Anti-CTIP (pS327) Antibody. Antigen (phosphopeptide and non-phosphopeptide) concentration is 5 ug/ml. Goat Anti-Rabbit IgG (H&L) - HRP was used as the secondary antibody, and signal was developed by TMB substrate. Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.