10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-CtIP (Ser326) Antibody

Our Anti-CtIP (Ser326) rabbit polyclonal phosphospecific primary antibody from PhosphoSolutions is p
Catalog # AN1350

Product Information

Application	WB
Primary Accession	Q99708
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	101942

Additional Information

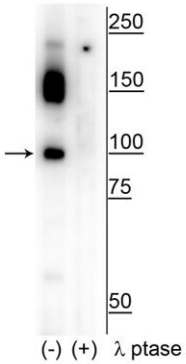
Gene ID	5932
Other Names	COM1 antibody, COM1_HUMAN antibody, CtBP interacting protein antibody, CtBP-interacting protein antibody, CtIP antibody, DNA endonuclease RBBP8 antibody, JWDS antibody, RB binding protein 8 endonuclease antibody, RBBP-8 antibody, RBBP8 antibody, Retinoblastoma-binding protein 8 antibody, Retinoblastoma-interacting protein and myosin-like antibody, Rim antibody, SAE2 antibody, SCKL2 antibody, Sporulation in the absence of SPO11 protein 2 homolog antibody
Target/Specificity	CtIP, C-terminal binding protein-interacting protein, is a DNA endonuclease activated by double stranded breaks (DSBs). DSB repairs can be performed by either one of two mechanisms; non-homologous end joining (NHEJ) or homologous recombination (HR). NHEJ is the predominant DSB repair pathway throughout the entire cell cycle, most importantly in the G1 phase (Rothkamm et al, 2003); while HR is important for repairing DSBs in S and G2 phases (Beucher et al, 2009). CtIP controls DSB resection; an event that only occurs in HR during G2-phase. Phosphorylation of Thr-847 dictates the resection efficiency (Huertas et al, 2008). Furthermore, it has been found that DSBs undergo resection and repair in G1-phase cells via a process requiring Plk3 phosphorylation of CtIP at Ser-327 and Thr-847 (Barton et al, 2014). Several additional phosphorylation sites within CtIP have been identified, but their significance in the repair of DNA have yet to be determined.
Dilution	WB~~1:1000
Format	Antigen Affinity Purified from Pooled Serum
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-CtIP (Ser326) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping	Blue Ice

Background

CtIP, C-terminal binding protein-interacting protein, is a DNA endonuclease activated by double stranded breaks (DSBs). DSB repairs can be performed by either one of two mechanisms; non-homologous end joining (NHEJ) or homologous recombination (HR). NHEJ is the predominant DSB repair pathway throughout the entire cell cycle, most importantly in the G1 phase (Rothkamm et al, 2003); while HR is important for repairing DSBs in S and G2 phases (Beucher et al, 2009). CtIP controls DSB resection; an event that only occurs in HR during G2-phase. Phosphorylation of Thr-847 dictates the resection efficiency (Huertas et al, 2008). Furthermore, it has been found that DSBs undergo resection and repair in G1-phase cells via a process requiring Plk3 phosphorylation of CtIP at Ser-327 and Thr-847 (Barton et al, 2014). Several additional phosphorylation sites within CtIP have been identified, but their significance in the repair of DNA have yet to be determined.

Images



Western blot of human T47D cell lysate showing specific immunolabeling of the ~100 kDa CtIP phosphorylated at Ser326 in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by blot treatment with lambda phosphatase (λ-Ptase, 1200 units for 30 min).