

#3001 Store at -20°C

Phospho-p95/NBS1 (Ser343) Antibody

✓ 100 µl
(10 western blots)



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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID # 4683
Swiss-Prot Acc. # O60934

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, E-P Endogenous	H, M, Mi	95 kDa	Rabbit**

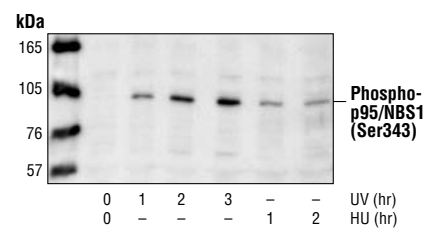
Background: The Nijmegen breakage syndrome (NBS) is characterized by defects in cell cycle checkpoints, growth retardation, an increased propensity for cancer and sensitivity to ionizing radiation (1). Repair of DNA double-strand breaks by radiation is dependent on a multifunctional complex containing Rad50, Mre11 and the NBS1 gene product p95/NBS1 (also called p95 or nibrin) (2). p95/NBS1 is a protein with a forkhead-associated domain and a carboxy-terminal repeat frequently found in cell cycle regulatory and DNA repair proteins (1,3). The overlap between clinical and cellular phenotypes in ataxia telangiectasia (AT) and NBS suggests that AT-mutated (ATM) and p95/NBS1 function in the same biochemical pathway. ATM interacts with and phosphorylates p95/NBS1 at Ser343 after exposure to ionizing radiation (4–7).

Specificity/Sensitivity: Phospho-p95/NBS1 (Ser343) Antibody detects endogenous levels of p95/NBS1 only when phosphorylated at serine 343.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser343 of human p95/NBS1. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Varon, R. et al. (1998) *Cell* 93, 467–476.
- (2) Carney, J.P. et al. (1998) *Cell* 93, 477–486.
- (3) Durocher, D. et al. (1999) *Mol. Cell* 4, 387–394.
- (4) Gatei, M. et al. (2000) *Nat. Genet.* 25, 115–119.
- (5) Lim, D.S. et al. (2000) *Nature* 404, 613–617.
- (6) Wu, X. et al. (2000) *Nature* 405, 477–482.
- (7) Zhao, S. et al. (2000) *Nature* 405, 473–477.



Western blot analysis of extracts from Mv1Lu cells treated with UV or hydroxyurea (HU) for the indicated times, using Phospho-p95/NBS1 (Ser343) Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
ELISA-Peptide	1:200

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.