

Pontin/RUVBL1 Antibody

✓ 100 µl
(10 western blots)



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New 09/12

For Research Use Only. Not For Use In Diagnostic Procedures.

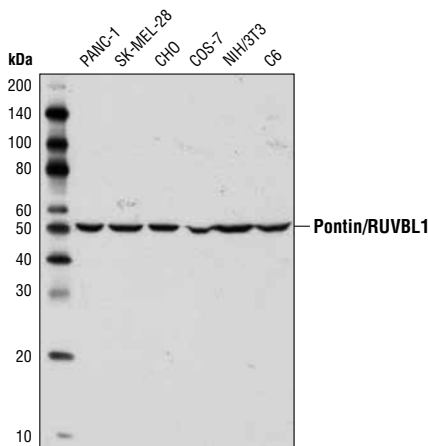
Applications W Endogenous	Species Cross-Reactivity* H, M, R, Hm, Mk	Molecular Wt. 50 kDa	Source Rabbit**
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Background: Reptin/RuvBL2 and Pontin/RuvBL1 are closely related members of the AAA+ (ATPase Associated with diverse cellular Activities) superfamily of proteins, and are putatively homologous to bacterial RuvB proteins that drive branch migration of Holliday junctions (1). Reptin and Pontin function together as essential components of chromatin remodeling and modification complexes, such as INO80, TIP60, SRCAP, and Uri1, which play key roles in regulating gene transcription (1,2). In their capacity as essential transcriptional co-regulators, Reptin and Pontin have both been implicated in oncogenic transformations, including those driven by c-Myc, β -catenin, and E1A (2-7).

A number of research studies have reported elevated levels of Pontin in selected cancer subtypes, including hepatocellular carcinoma and colon cancer (8-10). Interestingly, Pontin was reported to potentiate the TCF/LEF1- β -catenin transcriptional complex, whereas Reptin was antagonistic to the same complex, highlighting their related, but non-redundant, function (5). Research studies also suggest a functional role for Pontin and Reptin in the DNA damage response. Both proteins are phosphorylated by ATM and Rad3-related following DNA damage (11), while Pontin is reportedly required for TIP60 activity during the DNA damage response (12).

Specificity/Sensitivity: Pontin/RUVBL1 Antibody recognizes endogenous levels of total Pontin/RUVBL1 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human Pontin/RUVBL1 protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell lines using Pontin/RUVBL1 Antibody.

Entrez-Gene ID #8607
Swiss-Prot Acc. #Q9Y265

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

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

Please visit www.cellsignaling.com for a complete listing of recommended complementary products.

Background References:

- (1) Jha, S. and Dutta, A. (2009) *Mol Cell* 34, 521-33.
- (2) Gallant, P. (2007) *Trends Cell Biol* 17, 187-92.
- (3) Huber, O. et al. (2008) *Cancer Res* 68, 6873-6.
- (4) Kim, J.H. et al. (2005) *Nature* 434, 921-6.
- (5) Bauer, A. et al. (2000) *EMBO J* 19, 6121-30.
- (6) Wood, M.A. et al. (2000) *Mol Cell* 5, 321-30.
- (7) Dugan, K.A. et al. (2002) *Oncogene* 21, 5835-43.
- (8) Blanc, J.F. et al. (2005) *Proteomics* 5, 3778-89.
- (9) Lauscher, J.C. et al. (2007) *Hum Pathol* 38, 978-85.
- (10) Huber, O. et al. (2008) *Cancer Res* 68, 6873-6.
- (11) Matsuoka, S. et al. (2007) *Science* 316, 1160-6.
- (12) Jha, S. et al. (2008) *Mol Cell Biol* 28, 2690-700.

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.