Store at -20°C

# #11966

# BRM (D9E8B) XP® Rabbit mAb

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Small 100 µl (10 western blots)
Petite 40 µl (4 western blots)

**Support:** 877-678-TECH (8324)
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**Orders:** 877-616-CELL (2355)
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rev. 06/17/14

**Entrez-Gene ID** #6595
**UniProt ID** #P51531

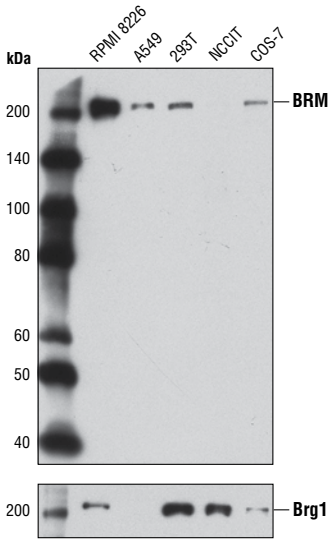
**For Research Use Only. Not For Use In Diagnostic Procedures.**

| Applications | Species Cross-Reactivity* | Molecular Wt. | Isotype |
|---|---|---|---|
| W, IP, IF-IC, ChIP<br>Endogenous | H, Mk, (Dg) | 200 kDa | Rabbit IgG** |

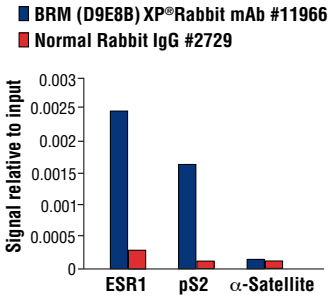
**Background:** ATP-dependent chromatin remodeling complexes play an essential role in the regulation of various nuclear processes, such as gene expression, DNA replication, and repair (1,2). The SWI/SNF chromatin remodeling complex consists of more than 10 subunits with a single molecule of the ATPase catalytic subunit BRM or BRG1, but not both. The activities of these two subunits drive the disruption of histone-DNA contacts that lead to changes in accessibility of crucial regulatory elements within chromatin (2-5). The BRM/BRG1 containing SWI/SNF complexes are recruited to target promoters by transcription factors, such as nuclear receptors, p53, RB, and BRCA1 to regulate gene activation, cell growth, the cell cycle, and differentiation processes (1,6-9). BRM and BRG1 are also considered to be tumor suppressors and their expression levels are severely reduced in several cancer cell lines (10-13).

**Specificity/Sensitivity:** BRM (D9E8B) XP® Rabbit mAb recognizes endogenous levels of total BRM protein. This antibody does not cross-react with BRG1 protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly264 of human BRM protein.




*Western blot analysis of extracts from various cell lines using BRM (D9E8B) XP® Rabbit mAb (upper) or Brg1 (A52) Antibody #3508 (lower).*




*Chromatin immunoprecipitations were performed with cross-linked chromatin from 4 x $10^6$ MCF7 cells grown in phenol red free medium and 5% charcoal stripped FBS for 4 d followed by treatment with β-estradiol (10 nM, 45 min) and either 5 µl of BRM (D9E8B) XP® Rabbit mAb or 2 µl of Normal Rabbit IgG #2729 using SimpleChIP® Enzymatic Chromatin IP Kit (Magnetic Beads) #9003. The enriched DNA was quantified by real-time PCR using SimpleChIP® Human ESR1 Promoter Primers #9673, SimpleChIP® Human pS2 Promoter Primers #9702, and SimpleChIP® Human α Satellite Repeat Primers #4486. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.*

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. 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 |
| Immunoprecipitation | 1:50 |
| Immunofluorescence (IF-IC) | 1:1200 |
| IF Protocol: | Methanol Permeabilization required |
| Chromatin IP | 1:100 |

**Background References:**

(1) Ho, L. and Crabtree, G.R. (2010) *Nature* 463, 474-84.
(2) Becker, P.B. and Hörz, W. (2002) *Annu Rev Biochem* 71, 247-73.
(3) Eberharter, A. and Becker, P.B. (2004) *J Cell Sci* 117, 3707-11.
(4) Bowman, G.D. (2010) *Curr Opin Struct Biol* 20, 73-81.
(5) Gangaraju, V.K. and Bartholomew, B. (2007) *Mutat Res* 618, 3-17.
(6) Lessard, J.A. and Crabtree, G.R. (2010) *Annu Rev Cell Dev Biol* 26, 503-32.
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(9) Simone, C. (2006) *J Cell Physiol* 207, 309-14.
(10) Yamamichi, N. et al. (2005) *Oncogene* 24, 5471-81.
(11) Reisman, D.N. et al. (2002) *Oncogene* 21, 1196-207.
(12) Shen, H. et al. (2008) *Cancer Res* 68, 10154-62.
(13) Weissman, B. and Knudsen, K.E. (2009) *Cancer Res* 69, 8223-30.



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

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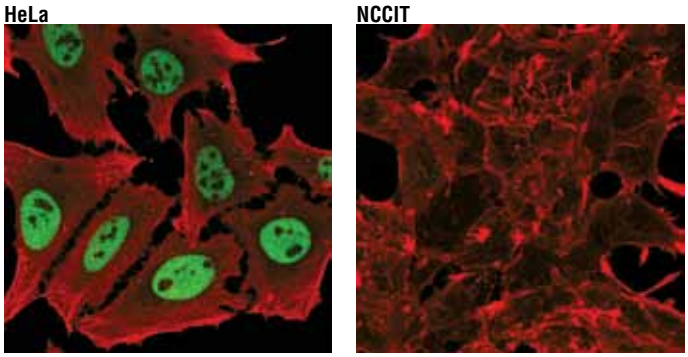
Cell Signaling TECHNOLOGY®

**Applications:** **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **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.




*Confocal immunofluorescent analysis of HeLa (positive, left) and NCCIT (negative, right) cells using BRM (D9E8B) XP® Rabbit mAb (green) and β-Actin (8H10D10) Mouse mAb #3700 (red).*