

Brg1 (D1Q7F) Rabbit mAb

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Applications: W, IP, ChIP, ChIP-seq, C&R	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 220	Source/Isotype: Rabbit IgG	UniProt ID: #P51532	Entrez-Gene Id: 6597
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Product Usage Information

For optimal ChIP and ChIP-seq results, use 10 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP[®] Enzymatic Chromatin IP Kits.

The CUT&RUN dilution was determined using CUT&RUN Assay Kit #86652.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Chromatin IP	1:50
Chromatin IP-seq	1:50
CUT&RUN	1:50

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.

Specificity/Sensitivity

Brg1 (D1Q7F) Rabbit mAb recognizes endogenous levels of total Brg1 protein. This antibody does not cross-react with BRM protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the amino terminus of human Brg1 protein.

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).

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.
7. Morettini, S. et al. (2008) *Front Biosci* 13, 5522-32.
8. Wolf, I.M. et al. (2008) *J Cell Biochem* 104, 1580-6.
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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **ChIP:** Chromatin IP **ChIP-seq:** Chromatin IP-seq **C&R:** CUT&RUN

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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