Store at -20°C

#33360

SMARCE1/BAF57 (E6H5J) Rabbit mAb

Cell Signaling TECHNOLOGY®

Support: +1-978-867-2388 (U.S.)
www.cellsignal.com/support

Orders: 877-616-2355 (U.S.)
orders@cellsignal.com

Entrez-Gene ID #6605
UniProt ID #Q969G3

New 03/18

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

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, ChIP Endogenous	H, M, R, Mk	57 kDa	Rabbit IgG**

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	1:100
Chromatin IP	1:50

Optimal ChIP conditions: 10 µl of antibody & 10 µg of chromatin (4 x 10^6 cells) per IP. Antibody validated using SimpleChIP® Enzymatic ChIP Kits.

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background: The modulation of chromatin structure is an essential component in the regulation of transcriptional activation and repression. Modifications can be made by at least two evolutionarily conserved strategies, through the disruption of histone-DNA contacts by ATP-dependent chromatin remodelers, or by histone tail modifications including methylation and acetylation. One of the four classes of ATP-dependent histone remodelers is the SWI/SNF complex, the central catalytic subunit of which is Brg1 or the highly related protein hBRM (1). This SWI/SNF complex contains varying subunits but its association with either Brg1 or hBRM remains constant (1). SWI/SNF complexes have been shown to regulate gene activation, cell growth, the cell cycle and differentiation (1). Brg1/hBRM have been shown to regulate transcription through enhancing transcriptional activation of glucocorticoid receptors (2). Although usually associated with transcriptional activation, Brg1/hBRM have also been found in complexes associated with transcriptional repression including with HDACs, Rb and Tif1β (3-5). Brg1/hBRM plays a vital role in the regulation of gene transcription during early mammalian embryogenesis. In addition, Brg1/hBRM also play a role as a tumor suppressors and Brg1 is mutated in several tumor cell lines (6-8).

SMARCE1/BAF57 is a core component of the SWI/SNF complex and directly binds other transcription factors and co-factors, including androgen receptor and estrogen receptor. Binding of SMARCE1/BAF57 can directly affect the transcriptional activity of nuclear receptors, influencing the expression of target genes (9-12). Mutations of SMARCE1/BAF57 have been described in Coffin-Siris syndrome (13). SMARCE1/BAF57 has also been shown to contribute to invasion of some early-stage breast lesions by forming a complex with ILF3, an event independent of the SWI/SNF complex (14).

Specificity/Sensitivity: SMARCE1/BAF57 (E6H5J) Rabbit mAb recognizes endogenous levels of total SMARCE1/BAF57 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu34 of human SMARCE1/BAF57 protein.

Background References:

(1) Trotter, K.W. and Archer, T.K. (2008) *Nucl Recept Signal* 6, e004.

(2) Trotter, K.W. and Archer, T.K. (2007) *Mol Cell Endocrinol* 265-266, 162-7.

(3) Sif, S. et al. (2001) *Genes Dev* 15, 603-18.

(4) Zhang, H.S. et al. (2000) *Cell* 101, 79-89.

(5) Underhill, C. et al. (2000) *J Biol Chem* 275, 40463-70.

(6) Magnani, L. and Cabot, R.A. (2009) *Reproduction* 137, 23-33.

(7) Medina, P.P. et al. *Epigenetics* 3, 64-8.

(8) Medina, P.P. et al. (2008) *Hum Mutat* 29, 617-22.

(9) Link, K.A. et al. (2005) *Mol Cell Biol* 25, 2200-15.

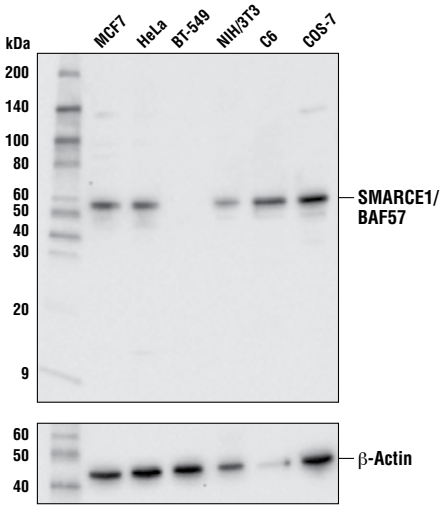
(10) Belandia, B. et al. (2002) *EMBO J* 21, 4094-103.

(11) García-Pedrero, J.M. et al. (2006) *J Biol Chem* 281, 22656-64.

(12) Link, K.A. et al. (2008) *Cancer Res* 68, 4551-8.

(13) Tsurusaki, Y. et al. (2012) *Nat Genet* 44, 376-8.

(14) Sokol, E.S. et al. (2017) *Proc Natl Acad Sci U S A* 114, 4153-4158.



Western blot analysis of extracts from various cell lines using SMARCE1/BAF57 (E6H5J) Rabbit mAb (upper) and β-Actin (D6A8) Rabbit mAb #8457 (lower). BT-549 is a breast ductal carcinoma cell line that lacks expression of SMARCE1/BAF57.

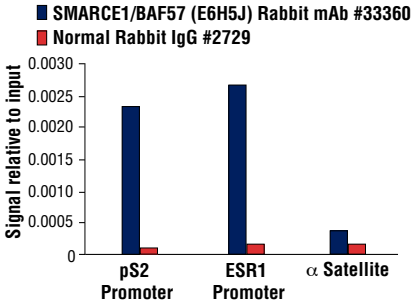
Tween is a registered trademark of ICI Americas, Inc.

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.

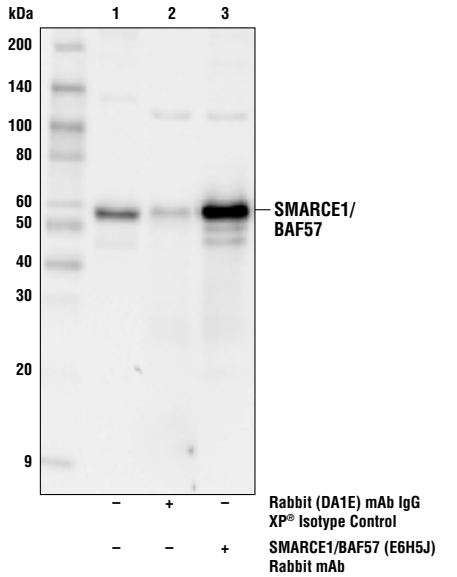
Thank you for your recent purchase. If you would like to provide a review visit cellsignal.com/comments.

www.cellsignal.com

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.



Chromatin immunoprecipitations were performed with cross-linked chromatin from 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 SMARCE1/BAF57 (E6H5J) Rabbit mAb or Normal Rabbit IgG #2729 using SimpleChIP® Plus Enzymatic Chromatin IP Kit (Magnetic Beads) #9005. The enriched DNA was quantified by real-time PCR using SimpleChIP® Human pS2 Promoter Primers #9702, SimpleChIP® Human ESR1 Promoter Primers #9673, 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.



Immunoprecipiation of SMARCE1/BAF57 from MCF7 cell extracts. Lane 1 is 10% input, lane 2 is Rabbit (DA1E) mAb IgG XP® Isotype Control #3900, and lane 3 is SMARCE1/BAF57 (E6H5J) Rabbit mAb. Western blot analysis was performed using SMARCE1/BAF57 (E6H5J) Rabbit mAb.