

#12483 Store at -20°C

SMARCA1 (D4Q7V) Rabbit mAb**Cell Signaling**
TECHNOLOGY®**Orders:** 877-616-CELL (2355)
orders@cellsignal.com**Support:** 877-678-TECH (8324)**Web:** info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H Mk	Endogenous	130	Rabbit IgG	#P28370	6594

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Immunoprecipitation

1:100

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

SMARCA1 (D4Q7V) Rabbit mAb recognizes endogenous levels of total SMARCA1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro73 of human SMARCA1 protein.

Background

SMARCA1 (SNF2L) is one of the two orthologs of the ISWI (imitation switch) ATPases encoded by the mammalian genome (1). The ISWI chromatin remodeling complexes were first identified in *Drosophila* and have been shown to remodel and alter nucleosome spacing *in vitro* (2). SMARCA1 is the catalytic subunit of the nucleosome remodeling factor (NURF) and CECR2-containing remodeling factor (CERF) complexes (3-5). The NURF complex plays an important role in neuronal physiology by promoting neurite outgrowth and regulation of *Engrailed* homeotic genes that are involved in neuronal development in the mid-hindbrain (3). NURF is also thought to be involved in the maturation of T cells from thymocytes by regulating chromatin structure and expression of genes important for T cell development (6). The largest subunit of the NURF complex, BPTF, is required for proper development of mesoderm, endoderm, and ectoderm tissue lineages, suggesting a role for SMARCA1 in the development of the germ layers in mouse embryo (7). Disruption of the CERF complex by deletion of CECR2, an interacting partner of SMARCA1, is associated with the neural tube defect exencephaly, linking the CERF complex with regulation of neurulation (4).

Background References

1. Lazzaro, M.A. and Picketts, D.J. (2001) *J Neurochem* 77, 1145-56.
2. Erdel, F. and Rippe, K. (2011) *FEBS J* 278, 3608-18.
3. Barak, O. et al. (2003) *EMBO J* 22, 6089-100.
4. Banting, G.S. et al. (2005) *Hum Mol Genet* 14, 513-24.
5. Ho, L. and Crabtree, G.R. (2010) *Nature* 463, 474-84.
6. Landry, J.W. et al. (2011) *Genes Dev* 25, 275-86.
7. Landry, J. et al. (2008) *PLoS Genet* 4, e1000241.

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**WB:** Western Blotting **IP:** Immunoprecipitation**Cross-Reactivity Key**

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
 All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.