

SMARCD2 (Y-14): sc-132107

BACKGROUND

SMARCD2 (SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily D, member 2), also known as Rsc6p, PRO2451, BAF60B (BRG1-associated factor 60B) or CRACD2, is a member of the SMARCD family and contains one SWIB domain. Expressed in liver, muscle, pancreas, lung and placenta, SMARCD2 localizes to the nucleus and is a component of the ATP-dependent chromatin remodeling complex SWI/SNF and is believed to play a role in nucleosome remodeling. The SWI/SNF complex is involved in the activation of transcription via the remodeling of nucleosome structure in an ATP-dependent manner. SMARCD2 is a homolog of the *Saccharomyces cerevisiae* protein Swp73, a component of the yeast SWI/SNF complex that is required for transcriptional activation. Due to alternative splicing events, two isoforms exist for SMARCD2.

REFERENCES

1. Wang, W., Xue, Y., Zhou, S., Kuo, A., Cairns, B.R. and Crabtree, G.R. 1996. Diversity and specialization of mammalian SWI/SNF complexes. *Genes Dev.* 10: 2117-2130.
2. Nomoto, K., Nakazato, S., Kazahari, K. and Ono, M. 1997. Gene structure of rat BAF60b, a component of mammalian SWI/SNF complexes, and its physical linkage to the growth hormone gene and transcription factor SUG/proteasome p45 gene. *Gene* 202: 157-165.
3. Ring, H.Z., Vameghi-Meyers, V., Wang, W., Crabtree, G.R. and Francke, U. 1998. Five SWI/SNF-related, matrix-associated, Actin-dependent regulator of chromatin (SMARCD) genes are dispersed in the human genome. *Genomics* 51: 140-143.
4. Ono, M., Nomoto, K. and Nakazato, S. 1999. Gene structure of rat testicular cell adhesion molecule 1 (TCAM-1), and its physical linkage to genes coding for the growth hormone and BAF60b, a component of SWI/SNF complexes. *Gene* 226: 95-102.
5. Surabhi, R.M., Daly, L.D. and Cattini, P.A. 1999. Evidence for evolutionary conservation of a physical linkage between the human BAF60b, a subunit of SWI/SNF complex, and thyroid hormone receptor interacting protein-1 genes on chromosome 17. *Genome* 42: 545-549.
6. Decristofaro, M.F., Betz, B.L., Rorie, C.J., Reisman, D.N., Wang, W. and Weissman, B.E. 2001. Characterization of SWI/SNF protein expression in human breast cancer cell lines and other malignancies. *J. Cell. Physiol.* 186: 136-145.

CHROMOSOMAL LOCATION

Genetic locus: SMARCD2 (human) mapping to 17q23.3; Smarcd2 (mouse) mapping to 11 E1.

SOURCE

SMARCD2 (Y-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SMARCD2 of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132107 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SMARCD2 (Y-14) is recommended for detection of SMARCD2 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with SMARCD3.

SMARCD2 (Y-14) is also recommended for detection of SMARCD2 isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SMARCD2 siRNA (h): sc-93762, SMARCD2 siRNA (m): sc-153618, SMARCD2 shRNA Plasmid (h): sc-93762-SH, SMARCD2 shRNA Plasmid (m): sc-153618-SH, SMARCD2 shRNA (h) Lentiviral Particles: sc-93762-V and SMARCD2 shRNA (m) Lentiviral Particles: sc-153618-V.

Molecular Weight of SMARCD2: 60 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **SMARCD2 (F-34): sc-101162**, our highly recommended monoclonal alternative to SMARCD2 (Y-14).