

SMARCD3 (V-13): sc-131787

BACKGROUND

SMARCD3 (SWI/SNF related, matrix associated, Actin dependent regulator of chromatin, subfamily d, member 3), also known as Rsc6p, CRACD3 or BAF60C (BRG1-associated factor 60C), is a member of the SMARCD family and contains one SWIB domain. Two isoforms, isoform 1 and isoform 2 exist due to alternative splicing events. Both isoforms are expressed in placenta, salivary gland, kidney, brain, trachea, uterus, prostate, testis, thyroid, spleen and heart, while isoform 1 is also expressed in adipose tissue and skeletal muscle. Localizing to the nucleus, SMARCD3 is a component of the ATP-dependent chromatin remodeling complex SNF/SWI and is believed to play a role in nucleosome remodeling. SMARCD3 also plays an important role in the regulation of muscle development. In mice, the silencing of the gene encoding SMARCD3 leads to defects in heart morphogenesis. In addition, both isoforms of SMARCD3 directly interact with and function as co-activators for several transcription factors.

REFERENCES

1. Wang, W., et al. 1996. Diversity and specialization of mammalian SWI/SNF complexes. *Genes Dev.* 10: 2117-2130.
2. Ring, H.Z., et al. 1998. Five SWI/SNF-related, matrix-associated, Actin-dependent regulator of chromatin (SMARC) genes are dispersed in the human genome. *Genomics* 51: 140-143.
3. Online Mendelian Inheritance in Man, OMIM™ 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601737. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Lickert, H., et al. 2004. Baf60c is essential for function of BAF chromatin remodelling complexes in heart development. *Nature* 432: 107-112.
5. Takita, J., et al. 2004. Gene expression profiling and identification of novel prognostic marker genes in neuroblastoma. *Genes Chromosomes Cancer* 40: 120-132.

CHROMOSOMAL LOCATION

Genetic locus: SMARCD3 (human) mapping to 7q36.1; Smarcd3 (mouse) mapping to 5 A3.

SOURCE

SMARCD3 (V-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SMARCD3 of human origin.

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-131787 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SMARCD3 (V-13) is recommended for detection of SMARCD3 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 family member SMARCD2.

SMARCD3 (V-13) is also recommended for detection of SMARCD3 isoforms 1 and 2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SMARCD3 siRNA (h): sc-89355, SMARCD3 siRNA (m): sc-108054, SMARCD3 shRNA Plasmid (h): sc-89355-SH, SMARCD3 shRNA Plasmid (m): sc-108054-SH, SMARCD3 shRNA (h) Lentiviral Particles: sc-89355-V and SMARCD3 shRNA (m) Lentiviral Particles: sc-108054-V.

Molecular Weight of SMARCD3: 60 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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.

RESEARCH USE

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

PROTOCOLS

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


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Try **SMARCD3 (RN-18): sc-101163**, our highly recommended monoclonal alternative to SMARCD3 (V-13).