SANTA CRUZ BIOTECHNOLOGY, INC.

SMARCD3 (F-20): sc-102120

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The Power to Question

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 coactivators for several transcription factors.

REFERENCES

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4. Lickert, H., et al. S.L., Henkelman, R.M., Wrana, J.L., Rossant, J. and Bruneau, B.G. 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 neuro-blastoma. Genes Chromosomes Cancer 40: 120-132.
6. Debril, M.B., et al. 2004. Transcription factors and nuclear receptors interact with the SWI/ SNF complex through the BAF60c subunit. J. Biol. Chem. 279: 16677-16686.
7. Flajollet, S., et al. 2007. The core component of the mammalian SWI/SNF complex SMARCD3/BAF60c is a coactivator for the nuclear retinoic acid receptor. Mol. Cell. Endocrinol. 270: 23-32.

CHROMOSOMAL LOCATION

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

SOURCE

SMARCD3 (F-20) is a purified rabbit polyclonal antibody raised against SMARCD3 of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

SMARCD3 (F-20) is recommended for detection of SMARCD3 of mouse, rat, human, canine and zebrafish origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

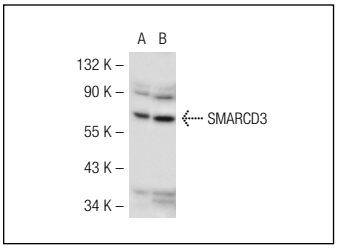
Molecular Weight of SMARCD3: 60 kDa.

Positive Controls: SMARCD3 (h): 293T Lysate: sc-111784 or 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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



SMARCD3 (F-20): sc-102120. Western blot analysis of SMARCD3 expression in non-transfected: sc-117752 (**A**) and human SMARCD3 transfected: sc-111784 (**B**) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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