

SmarcAL1 (K-20): sc-54519

BACKGROUND

SmarcAL1 (SWI/SNF-related matrix-associated Actin-dependent regulator of chromatin subfamily A-like protein 1), also known as HARP (HepA-related protein) or HHARP, is a 954 amino acid member of the SWI/SNF family of helicase and ATPase proteins. Localized to the nucleus, SmarcAL1 is a ubiquitously expressed protein that functions in ATP-dependent nucleosome-remodeling activities. SmarcAL1 contains one conserved C-terminal Snf2 domain, one helicase ATP-binding domain and two HARP (HepA-related) domains. Defects in the gene encoding SmarcAL1 are the cause of Schimke immuno-osseous dysplasia (SIOD), an autosomal recessive disorder characterized by renal dysfunction, spondyloepiphyseal dysplasia and T cell immunodeficiency.

REFERENCES

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2. Boerkoel, C.F., et al. 2002. Mutant chromatin remodeling protein SmarcAL1 causes Schimke immuno-osseous dysplasia. *Nat. Genet.* 30: 215-220.
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4. Lücke, T., et al. 2005. Schimke-immuno-osseous dysplasia: new mutation with weak genotype-phenotype correlation in siblings. *Am. J. Med. Genet. A* 135: 202-205.
5. Kilic, S.S., et al. 2005. Association of migraine-like headaches with Schimke immuno-osseous dysplasia. *Am. J. Med. Genet. A* 135: 206-210.
6. Böenkamp, A., et al. 2005. R561C missense mutation in the SmarcAL1 gene associated with mild Schimke immuno-osseous dysplasia. *Pediatr. Nephrol.* 20: 1724-1728.
7. Elizondo, L.I., et al. 2006. Schimke immuno-osseous dysplasia: a cell autonomous disorder? *Am. J. Med. Genet. A* 140: 340-348.
8. Clewing, J.M., et al. 2007. Schimke immunoosseous dysplasia: suggestions of genetic diversity. *Hum. Mutat.* 28: 273-283.
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CHROMOSOMAL LOCATION

Genetic locus: SMARCAL1 (human) mapping to 2q35.

SOURCE

SmarcAL1 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SmarcAL1 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-54519 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SmarcAL1 (K-20) is recommended for detection of SmarcAL1 of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SmarcAL1 siRNA (h): sc-63042, SmarcAL1 shRNA Plasmid (h): sc-63042-SH and SmarcAL1 shRNA (h) Lentiviral Particles: sc-63042-V.

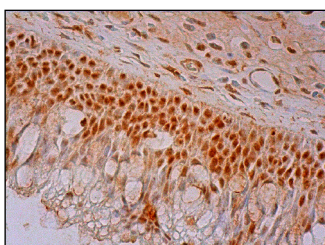
Molecular Weight of SmarcAL1: 110 kDa.

Positive Controls: DU 145 nuclear extract: sc-24960.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



SmarcAL1 (K-20): sc-54519. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear staining of respiratory epithelial cells.

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.

PROTOCOLS

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