

Smarcad1 (N-16): sc-162233

BACKGROUND

Smarcad1 (SWI/SNF-related, matrix-associated actin-dependent regulator of chromatin, subfamily a, containing DEAD/H box 1), also known as ETL1 or HEL1, is a 1,026 amino acid nuclear protein suggested to function as an ATP-dependent DNA helicase. A member of the SNF2/RAD54 helicase family, Smarcad1 undergoes posttranslational phosphorylation by either ATM or ATR and contains one helicase C-terminal domain, a helicase ATP-binding domain and two CUE domains. Existing as 2 alternatively spliced isoforms, Smarcad1 is encoded by a gene that maps to human chromosome 4, which represents approximately 6% of the human genome, contains nearly 900 genes and is associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

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3. Hirose, M., et al. 1999. Characterization of cDNA clones selected by the GeneMark analysis from size-fractionated cDNA libraries from human brain. *DNA Res.* 6: 329-336.
4. Krakow, D., et al. 2000. Exclusion of the Ellis-van Creveld region on chromosome 4p16 in some families with asphyxiating thoracic dystrophy and short-rib polydactyly syndromes. *Eur. J. Hum. Genet.* 8: 645-648.
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6. Okazaki, N., et al. 2008. The novel protein complex with Smarcad1/KIAA1122 binds to the vicinity of TSS. *J. Mol. Biol.* 382: 257-265.
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CHROMOSOMAL LOCATION

Genetic locus: SMARCD1 (human) mapping to 4q22.3; Smarcad1 (mouse) mapping to 6 C1.

SOURCE

Smarcad1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Smarcad1 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-162233 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Smarcad1 (N-16) is recommended for detection of Smarcad1 of mouse, rat and human 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)], 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).

Smarcad1 (N-16) is also recommended for detection of Smarcad1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Smarcad1 siRNA (h): sc-88856, Smarcad1 siRNA (m): sc-153617, Smarcad1 shRNA Plasmid (h): sc-88856-SH, Smarcad1 shRNA Plasmid (m): sc-153617-SH, Smarcad1 shRNA (h) Lentiviral Particles: sc-88856-V and Smarcad1 shRNA (m) Lentiviral Particles: sc-153617-V.

Molecular Weight (predicted) of Smarcad1: 117 kDa.

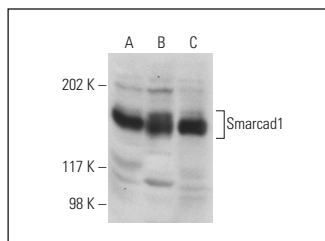
Molecular Weight (observed) of Smarcad1: 143 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, NIH/3T3 nuclear extract: sc-2138 or Hep G2 nuclear extract: sc-364819.

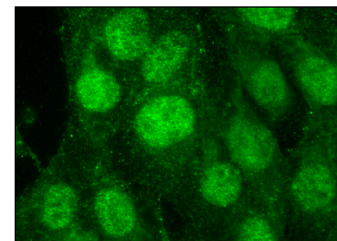
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Smarcad1 (N-16): sc-162233. Western blot analysis of Smarcad1 expression in HeLa (A), NIH/3T3 (B) and Hep G2 (C) nuclear extracts.



Smarcad1 (N-16): sc-162233. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

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.