

MCAF2 (T-16): sc-164977

BACKGROUND

MCAF2 (MBD1-containing chromatin-associated factor 2), also known as ATF7IP2 (activating transcription factor 7-interacting protein 2), is a 682 amino acid nuclear protein that exists as 2 alternatively spliced isoforms. MCAF2 can act as either an activator or repressor, thereby modulating chromatin formation and/or transcription regulation by linking transcription factors to transcription apparatuses. A member of the MCAF family, MCAF2 contains one fibronectin type-III domain and is thought to form a complex with ESET and MBD1. The gene encoding MCAF2 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing mal- function with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastroin- testinal inflammatory condition.

REFERENCES

- Baraitser, M., et al. 1983. The Rubinstein-Taybi syndrome: occurrence in two sets of identical twins. *Clin. Genet.* 23: 318-320.
- Breuning, M.H., et al. 1993. Rubinstein-Taybi syndrome caused by submi- croscopic deletions within 16p13.3. *Am. J. Hum. Genet.* 52: 249-254.
- Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neu- ropathy. *Nat. Genet.* 26: 370-374.
- Cho, J.H. 2004. Advances in the genetics of inflammatory bowel disease. *Curr. Gastroenterol. Rep.* 6: 467-473.
- Mathew, C.G., et al. 2004. Genetics of inflammatory bowel disease: progress and prospects. *Hum. Mol. Genet.* 13 Spec. No. 1: R161-R168.
- Ichimura, T., et al. 2005. Transcriptional repression and heterochromatin formation by MBD1 and MCAF/AM family proteins. *J. Biol. Chem.* 280: 13928-13935.
- Online Mendelian Inheritance in Man, OMIM[™]. 2010. Johns Hopkins University, Baltimore, MD. MIM Number: 613645. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: ATF7IP2 (human) mapping to 16p13.13.

SOURCE

MCAF2 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MCAF2 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-164977 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MCAF2 (T-16) is recommended for detection of MCAF2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immu- nofluorescence (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 MCAF2 siRNA (h): sc-93392, MCAF2 shRNA Plasmid (h): sc-93392-SH and MCAF2 shRNA (h) Lentiviral Particles: sc-93392-V.

Molecular Weight (predicted) of MCAF2 isoforms: 75/61 kDa.

Molecular Weight (observed) of MCAF2: 87 kDa.

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) Immunofluo- rescence: 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.

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.