

Menin (E-9): sc-390345

BACKGROUND

Menin (multiple endocrine neoplasia I, MEN1, MEAI, SCG2) is a nuclear tumor suppressor that is mutated in patients with multiple endocrine neoplasia type I (MEN1). Menin can activate the transcription of differentiation-regulating genes by covalent histone modification. In osteoblasts, the interaction of menin and the TGF β /Smad3 pathway negatively regulates BMP2/Smad1/5- and Runx2-dependent transcription activities leading to inhibition of late-stage differentiation. Menin regulates the expression of IGFBP-2 by influencing the IGFBP-2 promoter. Ectopic overexpression of menin via adenoviruses induces apoptosis in murine embryonic fibroblasts in a Bax/Bak-dependent manner. Two mRNA exist and two variants of the shorter mRNA have alternative splicing that changes the CDS. Five variants where alternative splicing takes place in the 5' UTR have been identified.

CHROMOSOMAL LOCATION

Genetic locus: MEN1 (human) mapping to 11q13.1; Men1 (mouse) mapping to 19 A.

SOURCE

Menin (E-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-21 at the N-terminus of Menin of human origin.

PRODUCT

Each vial contains 200 μ g IgG κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390345 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

Menin (E-9) is recommended for detection of Menin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

Menin (E-9) is also recommended for detection of Menin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Menin siRNA (h): sc-35922, Menin siRNA (m): sc-35923, Menin shRNA Plasmid (h): sc-35922-SH, Menin shRNA Plasmid (m): sc-35923-SH, Menin shRNA (h) Lentiviral Particles: sc-35922-V and Menin shRNA (m) Lentiviral Particles: sc-35923-V.

Molecular Weight of Menin: 67 kDa.

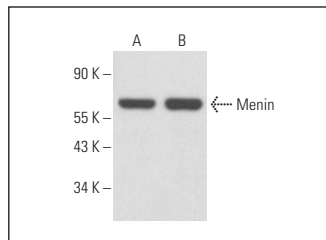
Positive Controls: HL-60 whole cell lysate: sc-2209 or SW480 cell lysate: sc-2219.

RECOMMENDED SUPPORT REAGENTS

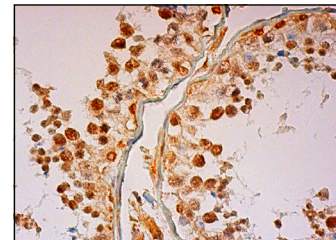
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.
- 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Menin (E-9): sc-390345. Western blot analysis of Menin expression in SW480 (A) and HL-60 (B) whole cell lysates.



Menin (E-9): sc-390345. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts.

SELECT PRODUCT CITATIONS

1. Nguyen, D.T., et al. 2021. Antisense oligonucleotide-based therapeutic against Menin for triple-negative breast cancer treatment. *Biomedicines* 9: 795.
2. Cherif, C., et al. 2022. Menin inhibition suppresses castration-resistant prostate cancer and enhances chemosensitivity. *Oncogene* 41: 125-137.
3. Bourefis, A., et al. 2022. HSP27/Menin expression as new prognostic serum biomarkers of prostate cancer aggressiveness independent of PSA. *Cancers* 14: 4773.

STORAGE

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

PROTOCOLS

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