

matrin-3 (C-20): sc-55723



The Power to Question

BACKGROUND

Matrin-3 is a nuclear matrix protein containing one matrin-type zinc finger and two RRM (RNA recognition motif) domains. Matrin-3 plays a role in transcription and may interact with other nuclear matrix proteins to form the internal fibrogranular network. In association with the PSF-p54/NRB heteromer, matrin-3 may play a role in the nuclear retention of defective RNAs. As the main substrate for PKA-mediated phosphorylation, matrin-3 may serve as a rapid way of transferring information from synapses containing NMDA receptors to neuronal nuclei under physiological conditions. Also, the phosphorylation of matrin-3 may contribute to neuronal death under pathological conditions. It is likely that matrin-3 activity is regulated by calcium dependent interaction with CaM I and also by caspase induced cleavage.

CHROMOSOMAL LOCATION

Genetic locus: MATR3 (human) mapping to 5q31.2; Matr3 (mouse) mapping to 18 B2.

SOURCE

matrin-3 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of matrin-3 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-55723 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

matrin-3 (C-20) is recommended for detection of matrin-3 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), 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).

matrin-3 (C-20) is also recommended for detection of matrin-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for matrin-3 siRNA (h): sc-62604, matrin-3 siRNA (m): sc-62605, matrin-3 shRNA Plasmid (h): sc-62604-SH, matrin-3 shRNA Plasmid (m): sc-62605-SH, matrin-3 shRNA (h) Lentiviral Particles: sc-62604-V and matrin-3 shRNA (m) Lentiviral Particles: sc-62605-V.

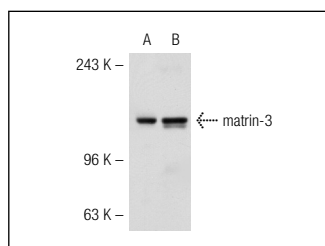
Molecular Weight of matrin-3: 95 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

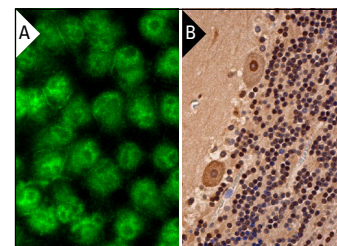
RECOMMENDED SECONDARY REAGENTS

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

DATA



matrin-3 (C-20): sc-55723. Western blot analysis of matrin-3 expression in 293T (A) and HeLa (B) whole cell lysates.



matrin-3 (C-20): sc-55723. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing nuclear and cytoplasmic staining of Purkinje cells, cells in granular layer and cells in molecular layer (B).

SELECT PRODUCT CITATIONS

- Soeno, Y., et al. 2010. Identification of novel ribonucleo-protein complexes from the brain-specific snoRNA MBII-52. RNA 16: 1293-1300.
- Fujita, T. and Fujii, H. 2011. Direct identification of insulator components by insertional chromatin immunoprecipitation. PLoS ONE 6: e26109.
- Marzano, V., et al. 2012. Proteomic profiling of ATM kinase proficient and deficient cell lines upon blockage of proteasome activity. J. Proteomics 75: 4632-4646.

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.



Try **matrin-3 (2539C3a): sc-81318**, our highly recommended monoclonal alternative to matrin-3 (C-20).