**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.

**REFERENCES**

6. Yu, L.R., et al. 2007. Improved titanium dioxide enrichment of phosphopeptides from HeLa cells and high confident phosphopeptide identification by cross-validation of MS/MS and MS/MS/MS spectra. J. Proteome Res. 6: 4150-4162.

**CHROMOSOMAL LOCATION**

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

**SOURCE**

matrin-3 (2539C3a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of matrin-3 of human origin.

**PRODUCT**

Each vial contains 100 μg IgG1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% BSA.

**APPLICATIONS**

matrin-3 (2539C3a) is recommended for detection of matrin-3 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)].

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: matrin-3 (h2): 293T Lysate: sc-176323, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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).

**DATA**

**SELECT PRODUCT CITATIONS**


**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 or our catalog for detailed protocols and support products.