**BACKGROUND**

Nestin is a major intermediate filament (IF) protein of embryonic central nervous system progenitor cells. It is also a component of the dynamic IF network during muscle development, where it polymerizes with Desmin and Vimentin. Nestin co-assembles with Vimentin or α-internexin and forms heterodimer-coil-coil molecules which then further assemble into 10 nm IFs. Deletion of the IF consensus rod domain in nestin alters nestin localization in CNS precursor cells and radial glial cells *in vivo*. Nestin is a marker for neuroepithelial stem cells, glioma cells and tumor endothelial cells during rapid growth. During axon elongation of differentiation neurons, nestin localizes to the growth cones and may play a role in growth cone guidance. In the rat adrenal gland, nestin is expressed by the zona fasciculata and the zona reticularis. Nestin is also expressed by dermalomat cells and by myoblasts during the earliest stages of myogenesis.

**CHROMOSOMAL LOCATION**

Genetic locus: NES (human) mapping to 1q23.1; Nes (mouse) mapping to 3 F1.

**SOURCE**

nestin (10c2) is a mouse monoclonal antibody raised against a 150 amino acid epitope mapping near the C-terminus of human nestin.

**PRODUCT**

Each vial contains 200 µg IgG1, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

nestin (10c2) is available conjugated to agarose (sc-23927 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23927 HRP), 200 µg/ml, for WB, IHC, and ELISA; to either phycocerythrin (sc-23927 PE), fluorescein (sc-23927 FITC), Alexa Fluor® 488 (sc-23927 AF488), Alexa Fluor® 546 (sc-23927 AF546), Alexa Fluor® 594 (sc-23927 AF594) or Alexa Fluor® 647 (sc-23927 AF647), 200 µg/ml, for WB (RGB), IF, IHC, and FCM; and to either Alexa Fluor® 680 (sc-23927 AF680) or Alexa Fluor® 790 (sc-23927 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

nestin (10c2) is recommended for detection of nestin 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of nestin: 190-200 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

**STORAGE**

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

**DATA**

nestin (10c2): sc-23927. Immunoperoxidase staining of formalin fixed, paraffin embedded human breast tissue showing cytoplasmic and membrane staining of myoepithelial cells (A), nestin (10c2) Alexa Fluor® 488: sc-23927 AF488. Direct immunofluorescence staining of formalin fixed SHARO cells showing cytoplasmic and membrane localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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