BACKGROUND

NRSF (neuron-restrictive silencer factor, also designated XBR and REST for RE1-silencing factor) is a silencer protein that binds the DNA sequence element NRSE (neuron-restrictive silencer element). The binding of NRSF to the NRSE represses neuronal gene transcription in non-neuronal cells. Although NRSF is most highly expressed in non-neural tissues, it is also expressed in developing neurons and at low levels in the brain. NRSF contains nine zinc-finger domains, but also exists as a C-terminally truncated form produced by alternative splicing. This variant, REST4, contains five of the zinc-finger domains and weakly binds DNA, yet is transported to the nucleus. NRSF associates with mSin3 and HDAC in ventricular myocytes, suggesting a role for NRSF outside the nervous system. Down-regulation of NRSF, which normally occurs upon neural differentiation, is necessary for the proper development of certain classes of neurons. NRSF is required to repress neuronal gene expression in vivo, in both extra-neural and undifferentiated neural tissue.

CHROMOSOMAL LOCATION

Genetic locus: REST (human) mapping to 4q12; Rest (mouse) mapping to 5 C3.3.

SOURCE

NRSF (H-290) is a rabbit polyclonal antibody raised against amino acids 1-290 of NRSF 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-25398 X, 200 µg/0.1 ml.

NRSF (H-290) is available conjugated to agarose (sc-25398 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

APPLICATIONS

NRSF (H-290) is recommended for detection of NRSF 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NRSF (H-290) is also recommended for detection of NRSF in additional species, including equine, canine and bovine.

Suitable for use as control antibody for NRSF siRNA (h): sc-38129, NRSF siRNA (m): sc-38130, NRSF shRNA Plasmid (h): sc-38129-SH, NRSF shRNA Plasmid (m): sc-38130-SH, NRSF shRNA (h) Lentiviral Particles: sc-38129-V and NRSF shRNA (m) Lentiviral Particles: sc-38130-V.

NRSF (H-290) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NRSF: 116 kDa.

Positive Controls: RAW 264.7 nuclear extract: sc-24961.

STORAGE

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

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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