

Neuregulin-1 (3F205): sc-71671

BACKGROUND

The neuregulins are a family of ErbB/HER ligands encoded by four genes. Neuregulin-1 gene, NRG1, encodes numerous splice variants with differing transcription initiation sites. Neuregulin-1 includes a range of isoforms with varying glycosylation, regulation of expression and function. Neuregulin-1 splice variants each bear an EGF-like domain, though otherwise have unique domain structures, differing functions and discrete tissue distribution. Six types of Neuregulin-1 isoform groups have been defined based on their structural features. Three types are most often described, type I (ARIA, NDF or HRG), type II (GGF) and type III (SMDF). Neuregulin-1 has been linked to schizophrenia and has diverse neural functions. Neuregulin-1 affects cell migration, the differentiation of neural crest and Schwann cells, and acts to upregulate the expression of acetylcholine receptors at muscle fibers during the formation of neuromuscular junctions.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Nrg1 (mouse) mapping to 8 A3.

SOURCE

Neuregulin-1 (3F205) is a mouse monoclonal antibody raised against recombinant extracellular domain of Neuregulin-1 of rat origin.

RESEARCH USE

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

PRODUCT

Each vial contains IgG_{2a} in 250 µl of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Neuregulin-1 (3F205) is recommended for detection of Neuregulin-1 of mouse and rat origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:1000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:500).

uitable for use as control antibody for Neuregulin-1 siRNA (m): sc-37211, Neuregulin-1 shRNA Plasmid (m): sc-37211-SH and Neuregulin-1 shRNA (m) Lentiviral Particles: sc-37211-V.

Molecular Weight of Neuregulin-1 isoforms: 26-71 kDa.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PROTOCOLS

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



See **Neuregulin-1 (E-12): sc-393006** for Neuregulin-1 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.