

FMR1NB (T-20): sc-246950

BACKGROUND

FMR1NB (fragile X mental retardation 1 neighbor), also referred to as CT37 (cancer/testis antigen 37), NYSAR35 or NY-SAR-35, is a 255 amino acid multi-pass membrane protein that is expressed in melanoma, sarcoma, lung, breast, bladder, esophageal and ovarian cancers. FMR1NB contains one P-type (trefoil) domain. The P-type (trefoil) motif is a three-looped clover leaf domain consisting of approximately 38 amino acids in length in which the loops are held together by six highly conserved disulfide bonds. P-type (trefoil) domains are commonly associated with both diseased and normal mucus-secreting epithelia. FMR1NB is encoded by a gene located on human chromosome X, which contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

REFERENCES

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- Thim, L. 1997. Trefoil peptides: from structure to function. *Cell. Mol. Life Sci.* 53: 888-903.
- Bernardino-Sgherri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
- Ross, M.T., et. al. 2005. The DNA sequence of the human X chromosome. *Nature* 434: 325-337.
- Hayashi, T., et. al. 2006. Novel form of a single X-linked visual pigment gene in a unique dichromatic color-vision defect. *Vis. Neurosci.* 23: 411-417.
- Augui, S., et. al. 2007. Sensing X chromosome pairs before X inactivation via a novel X-pairing region of the Xic. *Science* 318: 1632-1636.

CHROMOSOMAL LOCATION

Genetic locus: FMR1NB (human) mapping to Xq27.3.

SOURCE

FMR1NB (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of FMR1NB 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-246950 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

FMR1NB (T-20) is recommended for detection of FMR1NB of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for FMR1NB siRNA (h): sc-90974, FMR1NB shRNA Plasmid (h): sc-90974-SH and FMR1NB shRNA (h) Lentiviral Particles: sc-90974-V.

Molecular Weight of FMR1NB: 29 kDa.

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) 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.

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.