

# FMR2 (N-16): sc-70065

## BACKGROUND

FMR2 (fragile X mental retardation 2), also known as AF4 family member 2 (AFF2) or protein Ox19, is a 1,311 amino acid nuclear protein belonging to the AF4 family. Expressed in the brain, placenta and lung, FMR2 exists as two isoforms produced by alternative splicing. Defects in the gene that encodes FMR2 have been found to be a cause of FRAXE, an X-linked form of mental retardation. Individuals expressing the FRAXE site also have more than two-hundred copies of a GCC repeat adjacent to CpG island, compared to six to thirty-five copies of the GCC repeat in a normal individual. It is believed that loss of FMR2 expression causes this GCC expansion of the FRAXE site.

## REFERENCES

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3. Chakrabarti, L., Bristulf, J., Foss, G.S. and Davies, K.E. 1998. Expression of the murine homologue of FMR2 in mouse brain and during development. *Hum. Mol. Genet.* 7: 441-448.
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5. Sharma, D., Gupta, M. and Thelma, B.K. 2001. Expansion mutation frequency and CGG/GCC repeat polymorphism in FMR1 and FMR2 genes in an Indian population. *Genet. Epidemiol.* 20: 129-144.
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## CHROMOSOMAL LOCATION

Genetic locus: AFF2 (human) mapping to Xq28; Aff2 (mouse) mapping to X A7.1.

## SOURCE

FMR2 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of FMR2 of human origin.

## STORAGE

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

## 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-70065 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

FMR2 (N-16) is recommended for detection of FMR2 of mouse, rat and 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).

FMR2 (N-16) is also recommended for detection of FMR2 in additional species, including bovine.

Suitable for use as control antibody for FMR2 siRNA (h): sc-75046, FMR2 siRNA (m): sc-75047, FMR2 shRNA Plasmid (h): sc-75046-SH, FMR2 shRNA Plasmid (m): sc-75047-SH, FMR2 shRNA (h) Lentiviral Particles: sc-75046-V and FMR2 shRNA (m) Lentiviral Particles: sc-75047-V.

Molecular Weight of FMR2: 140 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.