

#4317 Store at -20°C

FMRP Antibody

✓ 100 µl
(10 western blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
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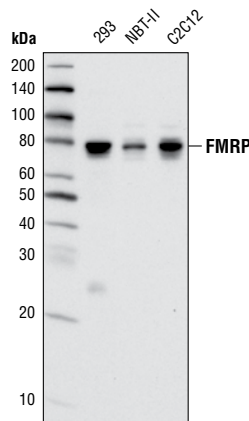
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IF-IC Endogenous	H, M, R, Mk	80 kDa	Rabbit**

Background: Fragile X syndrome, a frequent cause of inherited mental retardation, often results from expansion of the CGG trinucleotide repeat in the gene that encodes the fragile X mental retardation protein (FMRP) (1). FMRP (also known as FMR1) and its two autosomal homologs (FXR1 and FXR2) all bind RNA and play a role in the pathogenesis of Fragile X Syndrome (1-3). Each of these related proteins can associate with one another as well as form homodimers (3). FMRP can act as a translation regulator and is a component of RNAi effector complexes (RISC), suggesting a role in gene silencing (4). In *Drosophila*, dFMRP associates with Argonaute2 (Ago2) and Dicer and coimmunoprecipitates with miRNA and siRNA. These results suggest that Fragile X syndrome is somehow related to abnormal translation caused by a defect in RNAi-related pathways (5).

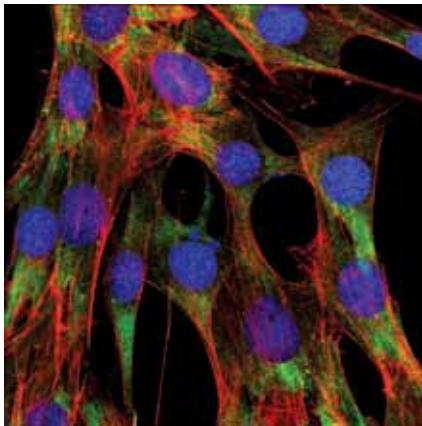
Specificity/Sensitivity: FMRP Antibody detects endogenous levels of total FMRP protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human FMRP. Antibodies are purified by protein A and peptide affinity chromatography.

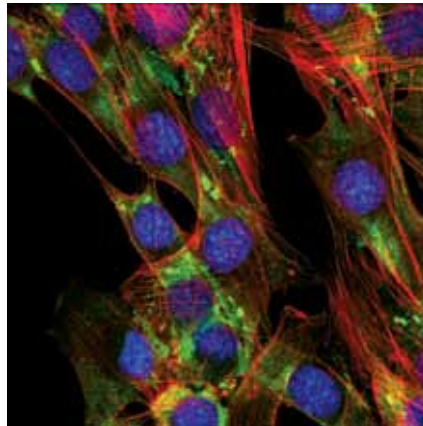


Western blot analysis of various cell lines using FMRP Antibody.

Untreated



MG132 treated



Confocal immunofluorescent analysis of C2C12 cells, untreated or treated with MG-132 (10 µg/mL for 3 hours), using FMRP Antibody (green). Actin filaments were labeled with DY-554 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Entrez-Gene ID #2332
Swiss-Prot Acc. #Q06787

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (IF-IC)	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

- (1) Verkerk, A.J. et al. (1991) *Cell* 65, 905-14.
- (2) Siomi, M.C. et al. (1995) *EMBO J* 14, 2401-8.
- (3) Zhang, Y. et al. (1995) *EMBO J* 14, 5358-66.
- (4) Caudy, A.A. et al. (2002) *Genes Dev* 16, 2491-6.
- (5) Siomi, H. et al. (2004) *Ment Retard Dev Disabil Res Rev* 10, 68-74.

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