Revision 1

Store at -20C

#4247

FXR2 Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H Mk	Endogenous	95	Rabbit	#P51116	9513

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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.

Specificity / Sensitivity

FXR2 Antibody detects endogenous levels of total FXR2 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human FXR2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Fragile X syndrome is a genetic disorder characterized by a spectrum of physical and behavioral features and is a frequent form of inherited mental retardation (1). X-linked FMRP (FMR-1) and its two autosomal homologs, FXR1 and FXR2, are polyribosome-associated RNA-binding proteins that are involved in the pathogenesis of fragile X syndrome (1-3). Each of the fragile X proteins can self-associate, as well as form heteromers with the other two related proteins (3). FMRP can act as a translation regulator and is a component of RNAi effector complexes (RISC), suggesting a role in gene silencing (4). The *Drosophila* homolog of FMRP (dFMRP) associates with Argonaute 2 (Ago2) and Dicer and can coimmunoprecipitate with miRNA and siRNA (5). These results suggest that fragile X syndrome is related to abnormal translation caused by defects in RNAi-related pathways. In addition, FMRP, FXR1, and FXR2 are components of stress granules (SG) and have been implicated in the translational regulation of mRNAs (6).

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.
6. Linder, B. et al. (2008) *Hum Mol Genet* 17, 3236-46.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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