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FXR1 Rabbit mAb
Catalog # AP76503

Specification

FXR1 Rabbit mAb - Product Information

Application	**WB, IHC-P, IHC-F, ICC**
Primary Accession	P51114
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Monoclonal Antibody**
Calculated MW	**69721**

FXR1 Rabbit mAb - Additional Information

Gene ID 8087

Other Names
FXR1

Dilution
WB~~1/500-1/1000
IHC-P~~N/A
IHC-F~~N/A
ICC~~N/A

Format
Liquid

FXR1 Rabbit mAb - Protein Information

Name FXR1 {ECO:0000303|PubMed:7781595, ECO:0000312|HGNC:HGNC:4023}

Function
mRNA-binding protein that acts as a regulator of mRNAs translation and/or stability, and which is required for various processes, such as neurogenesis, muscle development and spermatogenesis (PubMed:17382880, PubMed:20417602, PubMed:30067974, PubMed:34731628, PubMed:35989368, PubMed:36306353). Specifically binds to AU-rich elements (AREs) in the 3'-UTR of target mRNAs (PubMed:17382880, PubMed:34731628). Promotes formation of some phase-separated membraneless compartment by undergoing liquid-liquid phase separation upon binding to AREs-containing mRNAs, leading to assemble mRNAs into cytoplasmic ribonucleoprotein granules that concentrate mRNAs with associated regulatory factors (By similarity). Required to activate translation of stored mRNAs during late spermatogenesis: acts by

undergoing liquid-liquid phase separation to assemble target mRNAs into cytoplasmic ribonucleoprotein granules that recruit translation initiation factor EIF4G3 to activate translation of stored mRNAs in late spermatids (By similarity). Promotes translation of MYC transcripts by recruiting the eIF4F complex to the translation start site (PubMed:34731628). Acts as a negative regulator of inflammation in response to IL19 by promoting destabilization of pro-inflammatory transcripts (PubMed:30067974). Also acts as an inhibitor of inflammation by binding to TNF mRNA, decreasing TNF protein production (By similarity). Acts as a negative regulator of AMPA receptor GRIA2/GluA2 synthesis during long-lasting synaptic potentiation of hippocampal neurons by binding to GRIA2/GluA2 mRNA, thereby inhibiting its translation (By similarity). Regulates proliferation of adult neural stem cells by binding to CDKN1A mRNA and promoting its expression (By similarity). Acts as a regulator of sleep and synaptic homeostasis by regulating translation of transcripts in neurons (By similarity). Required for embryonic and postnatal development of muscle tissue by undergoing liquid-liquid phase separation to assemble target mRNAs into cytoplasmic ribonucleoprotein granules (PubMed:30770808). Involved in the nuclear pore complex localization to the nuclear envelope by preventing cytoplasmic aggregation of nucleoporins: acts by preventing ectopic phase separation of nucleoporins in the cytoplasm via a microtubule-dependent mechanism (PubMed:32706158). Plays a role in the stabilization of PKP2 mRNA and therefore protein abundance, via its interaction with PKP3 (PubMed:25225333). May also do the same for PKP2, PKP3 and DSP via its interaction with PKP1 (PubMed:25225333). Forms a cytoplasmic messenger ribonucleoprotein (mRNP) network by packaging long mRNAs, serving as a scaffold that recruits proteins and signaling molecules. This network facilitates signaling reactions by maintaining proximity between kinases and substrates, crucial for processes like actomyosin reorganization (PubMed:39106863).

Cellular Location
Cytoplasm, Cytoplasmic ribonucleoprotein granule. Cytoplasm, Stress granule. Cytoplasm. Cell projection, dendrite {ECO:0000250|UniProtKB:Q61584}. Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q61584}. Cell projection, axon {ECO:0000250|UniProtKB:Q61584}. Nucleus envelope. Postsynapse {ECO:0000250|UniProtKB:Q61584}. Note=Specifically localizes to cytoplasmic ribonucleoprotein membraneless compartments (By similarity). Localizes to stress granules following phosphorylation at Ser-420 by PAK1 (PubMed:20417602). Adjacent to Z-lines in muscles (By similarity). {ECO:0000250|UniProtKB:Q61584, ECO:0000269|PubMed:20417602}

Tissue Location
Expressed in all tissues examined including heart, brain, kidney and testis (PubMed:7781595, PubMed:9259278). In brain, present at high level in neurons and especially in the Purkinje cells at the interface between the granular layer and the molecular layer (at protein level) (PubMed:9259278).

FXR1 Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

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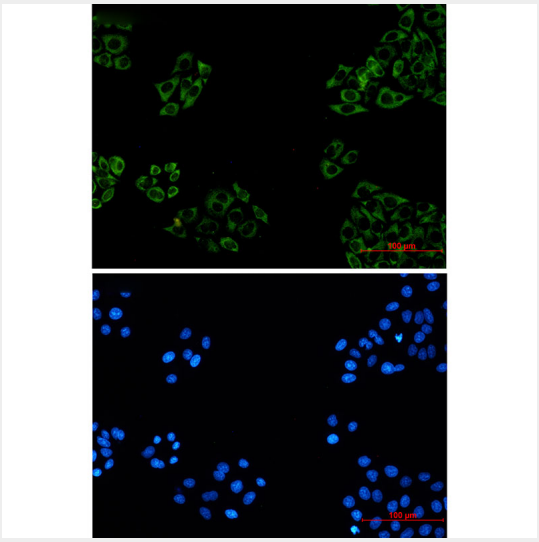
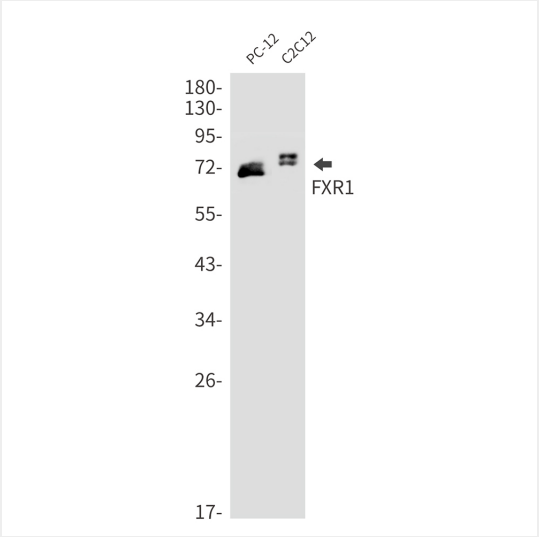
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FXR1 Rabbit mAb - Images





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