

# Anti-FXR1 Antibody [PSH01-35]

HA721669



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat, Monkey
<b>Applications:</b>	WB, IHC-P, IF-Cell, IP
<b>Molecular Wt:</b>	Predicted band size: 70 kDa
<b>Clone number:</b>	PSH01-35

**Description:** Fragile X mental retardation syndrome-related protein 1 is a protein that in humans is encoded by the FXR1 gene. The protein encoded by this gene is an RNA binding protein that interacts with the functionally similar proteins FMR1 and FXR2. These proteins shuttle between the nucleus and cytoplasm and associate with polyribosomes, predominantly with the 60S ribosomal subunit. Three transcript variants encoding different isoforms have been found for this gene.

**Immunogen:** Recombinant protein within human FXR1 aa 1-150 / 621.

**Positive control:** HeLa cell lysate, 293T cell lysate, HepG2 cell lysate, A549 cell lysate, K-562 cell lysate, COS-1 cell lysate, NIH/3T3 cell lysate, C2C12 cell lysate, PC-12 cell lysate, human testis tissue, mouse brain tissue, rat brain tissue, PC-12.

**Subcellular location:** Cytoplasm, Cytoplasmic ribonucleoprotein granule, Stress granule, Cell projection, dendrite, dendritic spine, axon, Nucleus envelope, Postsynapse.

**Database links:** SwissProt: P51114 Human | Q61584 Mouse | Q5XI81 Rat

**Recommended Dilutions:**

<b>WB</b>	1:1,000
<b>IHC-P</b>	1:200
<b>IF-Cell</b>	1:100

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

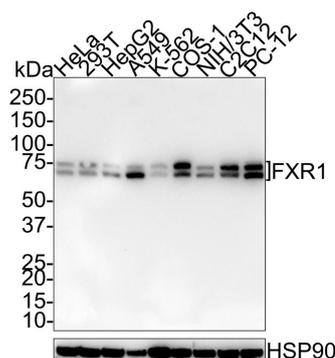
Technical:0086-571-89986345

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## Images

**Fig1:** Western blot analysis of FXR1 on different lysates with Rabbit anti-FXR1 antibody (HA721669) at 1/1,000 dilution.



Lane 1: HeLa cell lysate  
 Lane 2: 293T cell lysate  
 Lane 3: HepG2 cell lysate  
 Lane 4: A549 cell lysate  
 Lane 5: K-562 cell lysate  
 Lane 6: COS-1 cell lysate  
 Lane 7: NIH/3T3 cell lysate  
 Lane 8: C2C12 cell lysate  
 Lane 9: PC-12 cell lysate

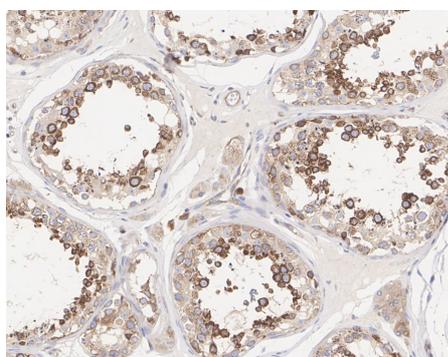
Lysates/proteins at 30 µg/Lane.

Predicted band size: 70 kDa  
 Observed band size: 70/75 kDa

Exposure time: 3 minutes 10 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (HA721669) at 1/1,000 dilution was used in 5% NFDN/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/100,000 dilution was used for 1 hour at room temperature.



**Fig2:** Immunohistochemical analysis of paraffin-embedded human testis tissue with Rabbit anti-FXR1 antibody (HA721669) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA721669) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

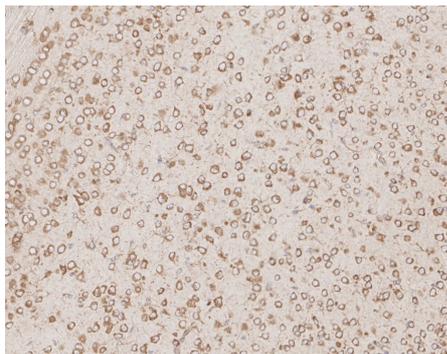
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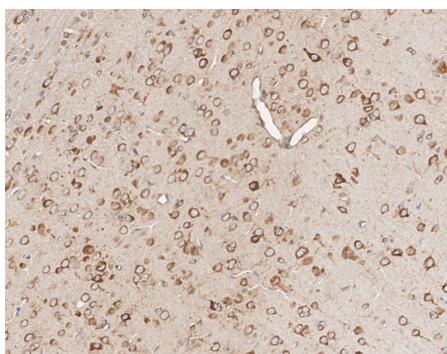
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**Fig3:** Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Rabbit anti-FXR1 antibody (HA721669) at 1/200 dilution.

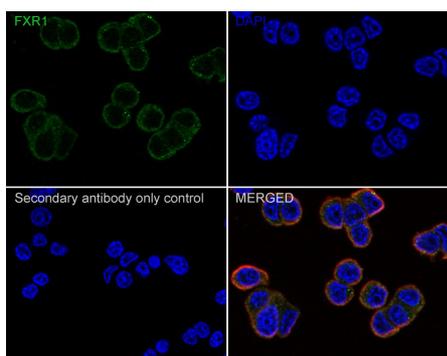
The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA721669) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig4:** Immunohistochemical analysis of paraffin-embedded rat brain tissue with Rabbit anti-FXR1 antibody (HA721669) at 1/200 dilution.

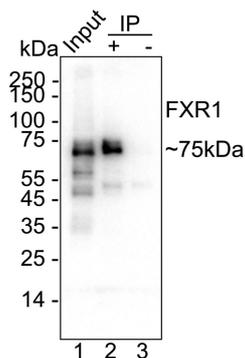
The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA721669) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Fig5:** Immunocytochemistry analysis of PC-12 cells labeling FXR1 with Rabbit anti-FXR1 antibody (HA721669) at 1/100 dilution.



Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-FXR1 antibody (HA721669) at 1/100 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.



**Fig6:** FXR1 was immunoprecipitated from 0.2 mg HepG2 cell lysate with HA721669 at 2  $\mu$ g/10  $\mu$ l beads. Western blot was performed from the immunoprecipitate using HA721669 at 1/1,000 dilution. HRP Conjugated Anti-Rabbit IgG for IP Nano-secondary antibody at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: HepG2 cell lysate (input)

Lane 2: HA721669 IP in HepG2 cell lysate

Lane 3: Rabbit IgG instead of HA721669 in HepG2 cell lysate

Blocking/Dilution buffer: primary antibody dilution (K1803)

Exposure time: 10 seconds; ECL: K1801

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Kang JY et al. LLPS of FXR1 drives spermiogenesis by activating translation of stored mRNAs. *Science*. 2022 Aug
2. Khlgatyan J et al. Fxr1 regulates sleep and synaptic homeostasis. *EMBO J*. 2020 Nov

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