

Anti-BRN3A Antibody [PSH11-65]

HA723361



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse, Rat
Applications:	IHC-Fr, IHC-P, WB, mlHC
Molecular Wt:	Predicted band size: 43 kDa
Clone number:	PSH11-65

Description: POU domain, class 4, transcription factor 1 (POU4F1) also known as brain-specific homeobox/POU domain protein 3A (BRN3A), homeobox/POU domain protein RDC-1 or Oct-T1 is a protein that in humans is encoded by the POU4F1 gene. BRN3A (POU4F1) is a class IV POU domain-containing transcription factor highly expressed in the developing peripheral sensory nervous system (dorsal root ganglia, trigeminal ganglion, and hindbrain sensory ganglia), certain regions of the central nervous system, retinal neurons called ganglion cells, and in cells of the B- and T-lymphocytic lineages.

Immunogen: Recombinant protein within Mouse BRN3A aa 1-421.

Positive control: Mouse embryonic brain tissue, mouse embryonic cochlear vestibular ganglion tissue, E14.5 mouse embryonic eye tissue, E14.5 rat embryo tissue, E14.0 mouse embryonic brain tissue lysates.

Subcellular location: Nucleus, Cytoplasm.

Database links: SwissProt: P17208 Mouse | P20266 Rat

Recommended Dilutions:

IHC-Fr	1:500
IHC-P	1:50-1:200
WB	1:1,000
mlHC	1:200-1:500

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

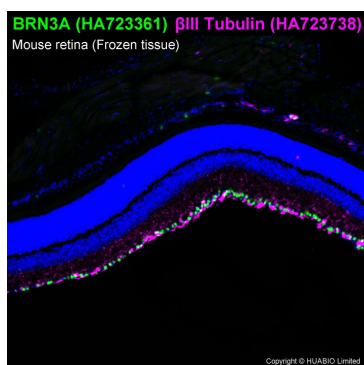


Fig1: mlHC analysis of mouse retina tissue (Frozen section) with BRN3A (HA723361, 1/500) and βIII tubulin (HA723738, 1/5,000).

The immunostaining was performed with the IRISKitCmTSA Kit (900802). Blocking with 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

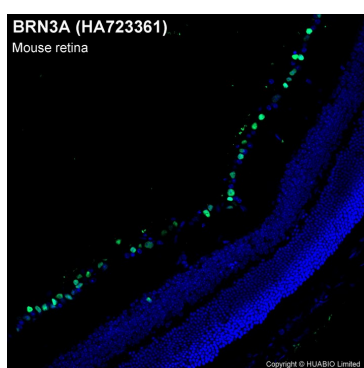


Fig2: Application: Immunofluorescence (IHC-Fr)

Species: Mouse
Tissue: Retina
Sample: Frozen section

Antigen retrieval: Not required

Wash buffer: 1× TBST

Blocking: 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature.

Primary antibody: HA723361, 1/500, overnight at 4℃.

Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), 1.5 hours at room temperature.

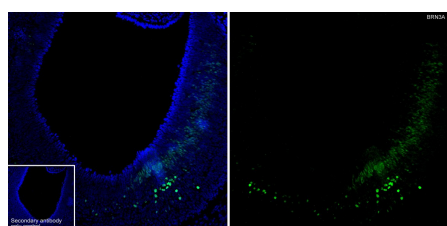


Fig3: Application: Immunofluorescence (IHC-Fr)

Species: Mouse
Tissue: E14.5 embryonic brain
Sample: Frozen section

Antigen retrieval: Not required

Wash buffer: 1× TBST

Blocking: 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature.

Primary antibody: HA723361, 1/500, overnight at 4℃.

Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), 1.5 hours at room temperature.

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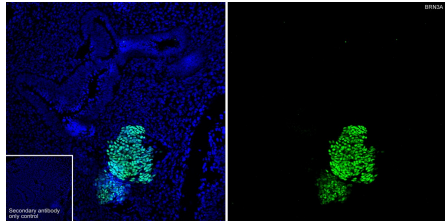


Fig4: Application: Immunofluorescence (IHC-Fr)

Species: Mouse

Tissue: E14.5 embryonic cochlear vestibular ganglion

Sample: Frozen section

Antigen retrieval: Not required

Wash buffer: 1× TBST

Blocking: 10% normal goat serum + 1% Triton X-100 + 0.3 M Glycine in TBST, 30 minutes at room temperature.

Primary antibody: HA723361, 1/500, overnight at 4℃.

Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), 1.5 hours at room temperature.

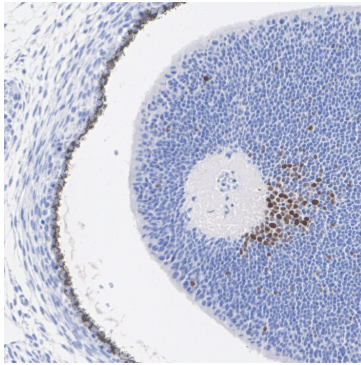


Fig5: Immunohistochemical analysis of paraffin-embedded E14.5 mouse embryonic eye tissue with Rabbit anti-BRN3A antibody (HA723361) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA723361) at 1/50 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.

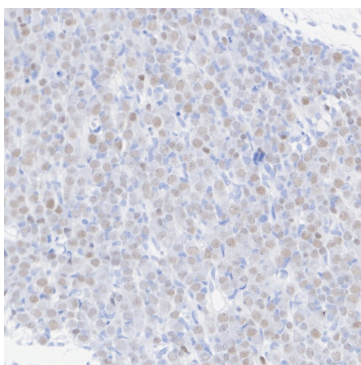


Fig6: Immunohistochemical analysis of paraffin-embedded E14.5 rat embryo tissue with Rabbit anti-BRN3A antibody (HA723361) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA723361) 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.

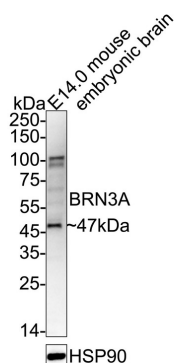


Fig7: Western blot analysis of BRN3A on E14.0 mouse embryonic brain tissue lysates with Rabbit anti-BRN3A antibody (HA723361) at 1/1,000 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 43 kDa

Observed band size: 47 kDa

Exposure time: 59 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA723361) at 1/1,000 dilution was used in primary antibody dilution (K1803) at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

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

Background References

1. Nishida K et al. Brn3a controls the soma localization and axonal extension patterns of developing spinal dorsal horn neurons. PLoS One. 2023 Sep
2. Heppt MV et al. HDAC2 Is Involved in the Regulation of BRN3A in Melanocytes and Melanoma. Int J Mol Sci. 2022 Jan

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