NeuN Recombinant Antibody [SR45-07] - Mouse IgG1 (Chimeric) - BSA and Azide free

HA610316

Product Type:	Recombinant Chimeric Antibody, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-Fr, IHC-P, WB
Molecular Wt:	Predicted band size: 34 kDa
Clone number:	SR45-07

Description: Neuronal nuclei (NeuN, Fox-3, RBFOX3) is a nuclear protein expressed in most post-mitotic neurons of the central and peripheral nervous systems. NeuN is not detected in Purkinje cells, sympathetic ganglion cells, Cajal-Retzius cells, INL retinal cells, inferior olivary, and dentate nucleus neurons. This neuronal protein was originally identified by immunoreactivity with a monoclonal antibody also called NeuN. Using MS-analysis, NeuN was later identified as the Fox-3 gene product. Fox-3 contains an RNA recognition motif and functions as a splicing regulator. Fox-3 regulates alternative splicing of NumB, promoting neuronal differentiation during development.

Immunogen: Synthetic peptide within human NeuN aa 20-60.

Positive control: Human brain tissue, mouse brain tissue, rat brain tissue, Mouse brain tissue lysate, Rat brain tissue lysate.

Subcellular location: Nucleus, Cytoplasm.

Database links: SwissProt: A6NFN3 Human | Q8BIF2 Mouse
Unigene: 143966 Rat

Recommended Dilutions:

IHC-Fr	1:1,000
IHC-P	1:5,000
WB	1:10,000

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

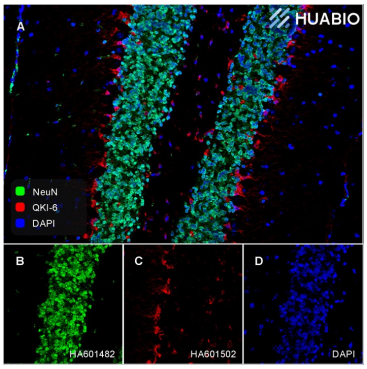

Fig1: Application: IHC-Fr

Species: Mouse

Site: brain

Sample: Frozen section

Antibody concentration: 1/1,000 (NeuN, HA610316, Mouse, green); 1/200 (QKI-6, HA601502, Guinea pig, red)

Antigen retrieval: Not required

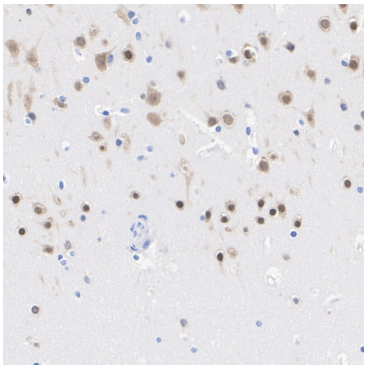

Fig2: Immunohistochemical analysis of paraffin-embedded human brain tissue with Mouse anti-NeuN antibody (HA610316) at 1/5,000 dilution.

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_2O and PBS, and then probed with the primary antibody (HA610316) at 1/5,000 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.

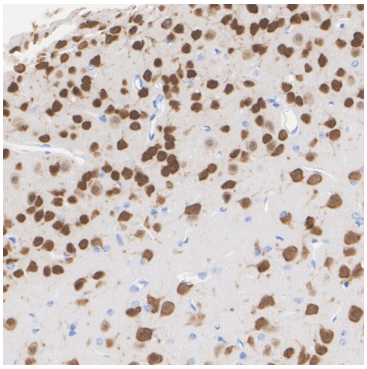

Fig3: Immunohistochemical analysis of paraffin-embedded mouse brain tissue with Mouse anti-NeuN antibody (HA610316) at 1/5,000 dilution.

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_2O and PBS, and then probed with the primary antibody (HA610316) at 1/5,000 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.

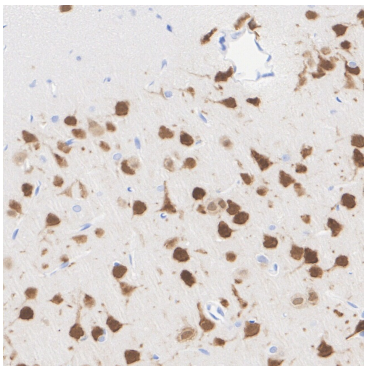

Fig4: Immunohistochemical analysis of paraffin-embedded rat brain tissue with Mouse anti-NeuN antibody (HA610316) at 1/5,000 dilution.

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_2O and PBS, and then probed with the primary antibody (HA610316) at 1/5,000 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.

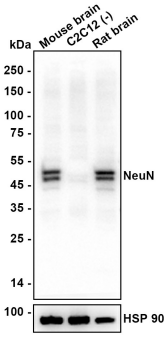

Fig5: Western blot analysis of NeuN on different lysates with Mouse anti-NeuN antibody (HA610316) at 1/10,000 dilution.

Lane 1: Mouse brain tissue lysate
Lane 2: C2C12 cell lysate (negative)
Lane 3: Rat brain tissue lysate

Lysates/proteins at 15 µg/Lane.

Predicted band size: 34 kDa
Observed band size: 45/50 kDa

Exposure time: 20 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 (HA610316) at 1/10,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Santamaría G et al. NeuN distribution in brain structures of normal and Zika-infected suckling mice. J Mol Histol. 2023 Jun
2. Luijerink L et al. Immunostaining for NeuN Does Not Show all Mature and Healthy Neurons in the Human and Pig Brain: Focus on the Hippocampus. Appl Immunohistochem Mol Morphol. 2021 Jul