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www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 200-301-X09

FOX3 (NeuN) Antibody

Overview

Description:	Anti-FOX3 (NeuN) (MOUSE) Monoclonal Antibody - 200-301-X09
Item No.:	200-301-X09
Size:	100 µL
Applications:	IHC, WB, Other
Reactivity:	Human, Mouse, Rat, Bovine
Host Species:	Mouse

Product Details

Background:	FOX3, also known as NeuN and hexaribonucleotide binding protein 3, is a neuron-specific RNA binding nuclear protein involved in the regulation of pre-mRNA alternative splicing. FOX3 dependent alternative splicing of Numb has recently been shown to play an important role in the progression of neuronal differentiation during vertebrate development. FOX3 Antibody is ideal for researchers interested in neuroscience research.
Synonyms:	RNA binding protein fox-1 homolog 3, Fox-1 homolog C, NeuN, hexaribonucleotide binding protein 3
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	1B7
Format:	IgG2a

Target Details

Gene Name:	RBFOX3
Reactivity:	Human, Mouse, Rat, Bovine
Immunogen Type:	Recombinant Protein
Immunogen:	Anti-FOX3 Antibody was produced in mice by repeated immunizations with a recombinant protein taken from the N-terminus of human FOX3 expressed in and purified from E. Coli.

Purity/Specificity:	Anti-FOX3 Antibody was purified from tissue culture supernatant by protein G chromatography.
Relevant Links:	• UniProtKB - A6NFN3 • GeneID - 146713 • NCBI - NP_001076044.1

Application Details

Tested Applications:	IHC, WB
Suggested Applications:	Other (Based on references)
Application Note:	Anti-FOX3 Antibody is tested for Western Blot, immunohistochemistry, and immunocytochemistry, and it is specific for the ~46/48 kDa FOX3 protein doublet. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000
IF:	1:500
IHC:	1:200-1:1000
WB:	1:2000

Formulation

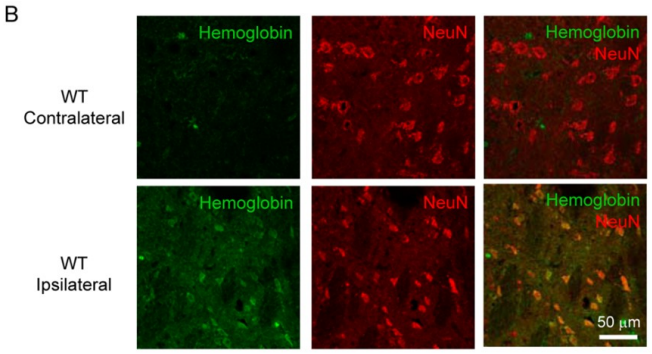
Physical State:	Liquid (sterile filtered)
Concentration:	titrated reagent Sufficient to run approximately 10 miniblots
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	50% (v/v) Glycerol

Shipping & Handling

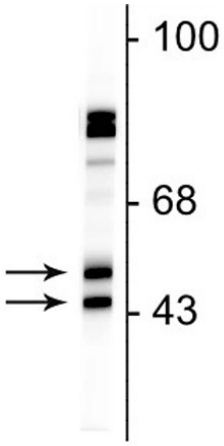
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage upon thawing. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature.

Expiration: Expiration date is one (1) year from date of receipt.

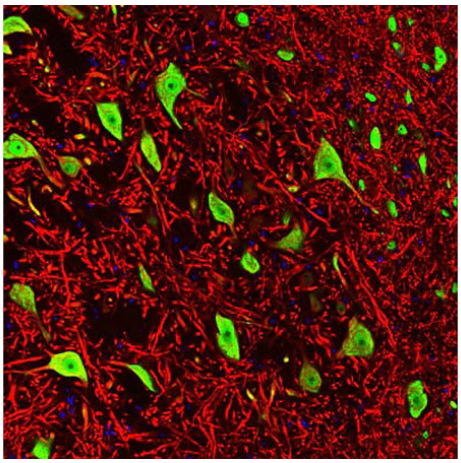
Images



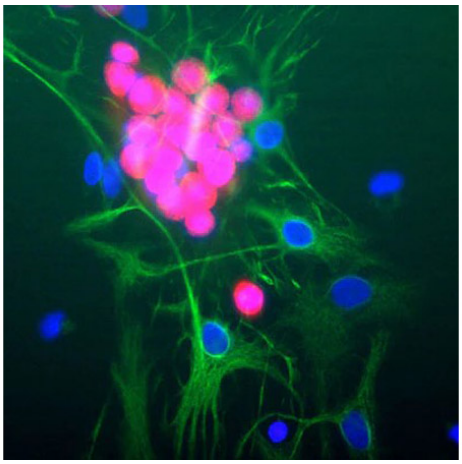
Immunofluorescence Microscopy
GPR68 mediates ischemia-induced upregulation of hemoglobin.
(B) Immunolocalization of hemoglobin. Cryosections of WT tMCAO brain was stained with anti-hemoglobin (green) and anti-NeuN (red). Images were from contralateral (left panel) and ipsilateral (right panel) striatum. Note that most of increased hemoglobin signals in the ipsilateral side colocalize with NeuN staining.
Figure 6. PMID: 33724568



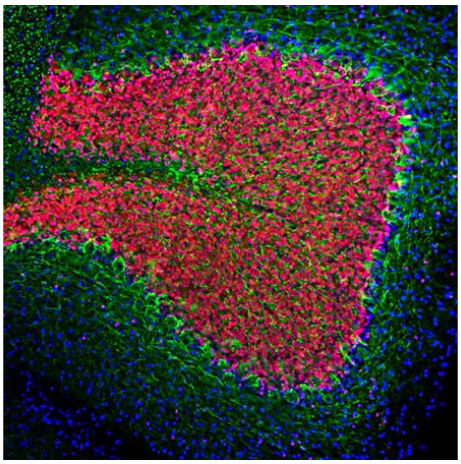
Western Blot
Western blot of Anti-FOX3 antibody.
Rat cortical lysate showing specific immunolabeling of the ~46/48 kDa FOX3 protein.



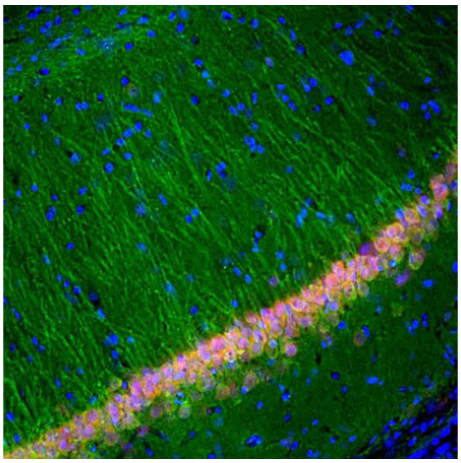
Immunofluorescence Microscopy
Immunofluorescence of a section of rat brain stem co-labeled with Anti-FOX3 (p/n 200-301-X09, green, 1:1000) and Anti-MAP2 (red, 1:5000). The Anti-FOX3 specifically labels the nuclei and the proximal cytoplasm of neuronal cells while the Anti-MAP2 labels dendrites and overlaps with FOX3 labeling the perikarya of neurons. The blue is DAPI staining of nuclear DNA.



Immunofluorescence Microscopy
Immunolabeling of cultured rat neurons showing strong nuclear and distal cytoplasmic labeling with anti-FOX3 (p/n 200-301-X09, 1:1000, red). The complete absence of astrocyte staining is shown using anti-GFAP (1:1000, green) and nuclear staining was done with DAPI (blue).



Immunofluorescence Microscopy
Immunofluorescence of a section of rat cerebellum showing specific labeling of FOX3 (p/n 200-301-X09, 1:5000, red) and Neurofilament-L (1:2000, green). The anti-NFL strongly labels the axons of basket calls and perikarya and processes of neuronal cells. The anti-FOX3 labels the nuclei and proximal cytoplasm of neurons. The blue is DAPI staining of nuclear DNA.



Immunofluorescence Microscopy
Immunofluorescence of a section of rat hippocampus showing specific labeling of FOX3 (p/n 200-301-X09, red) and UCHL1 (1:5000, green) in cell bodies and dendrites of neurons. The blue is DAPI staining of nuclear DNA.

References

- Zhou G et al. RNA-Seq analysis of knocking out the neuroprotective proton-sensitive GPR68 on basal and acute ischemia-induced transcriptome changes and signaling in mouse brain. *FASEB J.* (2021)

Disclaimer

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