



Rabbit polyclonal antibody to NeuN/Fox3 (1-99): Whole serum

Catalogue No.:	R-3770-100
Description:	Fox3 is one of a family of mammalian homologues of Fox-1. The Fox proteins are about 46kDa in size, and each includes a central highly conserved RRM type RNA recognition motif. Much interest has focused on Fox3 as a result of the recent finding that this protein corresponds to NeuN, a neuronal nuclear antigen. NeuN/Fox-3 has a function in RNA splicing and is expressed heavily and specifically in neuronal nuclei and cytoplasm. Our antibody was raised against the N-terminal 100 amino acids of human Fox3 as expressed in and purified from E. coli. We did not use full length Fox3 as immunogen since the three mammalian Fox homologues, namely Fox1, Fox2 and Fox3, include virtually identical RRM motifs. The N-terminal region of the three molecules are much more variable in the three molecules so antibodies specific for each of the three molecules can therefore be generated.
Batch No.:	See product label
Unit size:	100 uL
Antigen:	Antibody was raised against the N-terminal 100 amino acids of human Fox3 as expressed in and purified from E. coli.
Antigen Location:	1-99
Antigen Length:	100 amino acids
Antibody Type:	Antiserum
Other Names:	Feminizing locus on X; Fox-1; Fox3; NeuN;
Accession:	A6NFN3 FOX1C_HUMAN;
Produced in:	Rabbit
Applications:	Western Blotting (WB) and Immunocytochemistry (IC). A dilution of 1:5,000 - 1:10,000 is recommended for WB. A dilution of 1:500 - 1:1,000 is recommended for IC. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	The specificity of this antibody has been confirmed by WB and IC. Two alternate transcripts can be seen at 46 kDa and 48 kDa in WB. This antibody has been used successfully for immunohistochemistry on paraformaldehyde fixed rat brain cortex (adult) tissue. It does not bind to the nuclei of perikarya of non-neuronal cells making it a good marker to identify neurons.
Antibody Against:	NeuN/Fox3
Cross-reactivity:	Rat. Predicted to react with other mammals due to sequence homology.
Form:	Lyophilised
Appearance:	White powder
Reconstitution:	Reconstitute in sterile distilled water. Centrifuge to remove any insoluble material.
Storage:	After reconstitution of lyophilised antibody, aliquot and store at -20C for a higher stability. Avoid freeze-thaw cycles.
Expiry Date:	12 months after purchase
Specific References:	

FOR RESEARCH USE ONLY

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Castle MJ et al (2018) Physical positioning markedly enhances brain transduction after intrathecal AAV9 infusion. *Sci Adv.* 4(11):eaau9859 Species: Rat, Application IHC/IF.

Hao XZ et al (2016) Combining systemic and stereotactic MEMRI to detect the correlation between gliosis and neuronal connective pathway at the chronic stage after stroke. *J Neuroinflammation.* 13(1):156 Species: Rat, Application IH.

Zhou XF et al (2015) Transcription factors COUP-TFI and COUP-TFII are required for the production of granule cells in the mouse olfactory bulb. *Development.* 142(9):1593-605 Species: Mouse, Application IH.

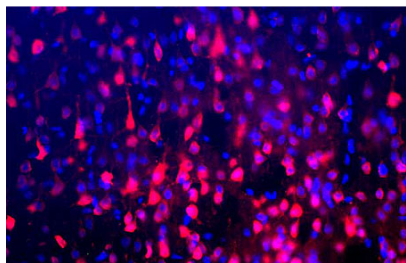
Saha M, et al (2013) Spinal Mitogen-Activated Protein Kinase Phosphatase-3 (MKP-3) is Necessary for the Normal Resolution of Mechanical Allodynia in a Mouse Model of Acute Postoperative Pain. *J. Neurosci.* 33(43):17182-7

Liu X et al (2013) Suppressive Effect of Phenol Red on the Epileptiform Burst Activity via Activation of Estrogen Receptors in Primary Hippocampal Culture. *PLoS ONE* 8(4):e60189

Landry R.P. et al (2012) Spinal Cannabinoid Receptor Type 2 Agonist Reduces Mechanical Allodynia and Induces Mitogen-Activated Protein Kinase Phosphatases in a Rat Model of Neuropathic Pain. *J Pain.* 2012 Aug 14

Ndong C. et al (2012) Mitogen activated protein kinase phosphatase-1 prevents the development of tactile sensitivity in a rodent model of neuropathic pain. *Mol Pain.* 2012 Apr 27;8(1):34.

General References: Kim K.K. et al (2009) Identification of neuronal nuclei (NeuN) as Fox-3, a new member of the Fox-1 gene family of splicing factors. *J Biol Chem.* 2009 Nov 6;284(45):31052-61.



Paraformaldehyde fixed frozen section of adult rat cortex stained with Rabbit polyclonal antibody to NeuN/Fox3 (R-3770-100) in red and counterstained for DNA in blue. Note that this Fox3 antibody stains neuronal nuclei and distal perikarya and does not bind to the nuclei of perikarya of non-neuronal cells and so can be used to identify neurons.

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