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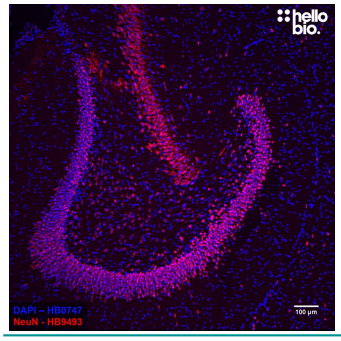
DATASHEET

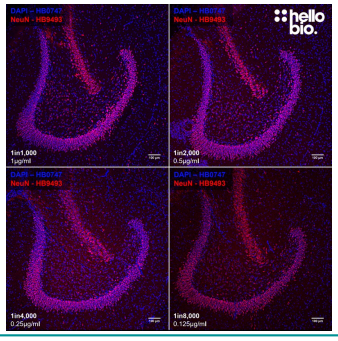
Anti-NeuN antibody ValidAb™

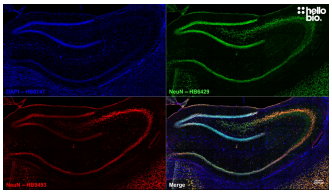
Product overview

Name	Anti-NeuN antibody ValidAb™
Cat No	HB9493
Alternative names	Fox-3
Host	Goat
Clonality	Polyclonal
Target	NeuN
Description	Antibody to NeuN - marker for mature neurones expressed in the nucleus. Part of the ValidAb™ range of highly validated, data-rich antibodies.

Validation data







Product information

Immunogen	N-terminal 100 amino acids of human FOX3 expressed and purified from E. coli
Isotype	IgG
Purification	Immunogen affinity purification
Concentration	1mg/ml
Formulation	50% PBS, 50% glycerol + 5mM sodium azide
Predicted species reactivity	Mouse, Rat, Human
Tested species reactivity	Mouse, Rat

Tested applications

Applications	IHC(IF)
IHC(IF) optimal concentration	1:1000 (1µg/ml) as assessed in rat brain sections
Positive control	NeuN is highly expressed in the neurons of the CNS and PNS. It is also expressed in SH-SY5Y cells.
Negative control	Any tissue not of neural origin. Most cell lines are NeuN negative.
Open data link	Please follow this link to OSF.

Target information

Other names	FOX3, RNA binding protein fox-1 homolog 3, Fox-1 homolog C, RBFOX3, RFOX3
UniProt ID	A6NFN3
Gene name	RBFOX3
NCBI full gene name	RNA binding fox-1 homolog 3
Entrez gene ID	146713
Amino acids	Dependent on isoform
Isoforms	NeuN binds primarily to FOX3 which has two isoforms. Isoform 1 is described as the canonical sequence with 312 amino acids (33.8kDa) while isoform 2 has a 13 residue insert at position 312 leading to a total length of 325 amino acids (35.1kDa). NeuN antibodies also bind to synapsin-1 in western blot experiments (but not in IHC or ICC) which has two isoforms. Isoform 1 is 705aa long (74.1kDa) while isoform 2 is shorter at 669aa (70.0kDa).
Expression	NeuN is expressed only within neurones. While the vast majority of neurones express NeuN some cell types such as Purkinje cells, stellate and golgi cells do not show immunoreactivity.
Subcellular expression	Expression is primarily localised to the nucleus however some FOX3 isoforms can localise to the cytosol.
Processing	None
Post translational modifications	Phosphorylation has been reported (see Lind et al., 2004. J Neurosci Res. 79: 295-302) which is directly related to immunoreactivity whereby dephosphorylation abolished staining.
Homology (compared to human)	Mouse FOX3 shows 95.02% identity to human FOX3 wheras rat FOX3 shows no similarity due to a large 47 residue insertion at amino acid 252 in rats.
Similar proteins	RNA-binding protein fox-1 homolog 1 (40-44kDa) shows 67.3% identity while RNA-binding protein fox-1 homolog 2 (37-47kDa) shows 56.5% identity.

Storage & Handling

Storage instructions	-20°C
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

References

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NeuN As a Neuronal Nuclear Antigen and Neuron Differentiation Marker.

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Kim KK et al (2009) The Journal of biological chemistry 284
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Characterization of the neuronal marker NeuN as a multiply phosphorylated antigen with discrete subcellular localization.

Lind D et al (2005) Journal of neuroscience research 79
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