



Catalog Number:	GT22106	Host:	Goat
Product Type:	Goat Polyclonal	Species Reactivity:	Human, Rat, Mouse
Immunogen Sequence:	N-terminal 100 amino acids of human Fox3 expressed in and purified from <i>E. coli</i>	Format:	Affinity purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3
Applications:	Immunofluorescence: 1:1,000-5,000 Immunohistochemistry: 1:1,000-5,000 Western Blot: 1:1,000-2,000		
Storage:	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. Antibody can also be aliquotted and stored frozen at -20° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Avoid repeated freeze-thaw cycles.		

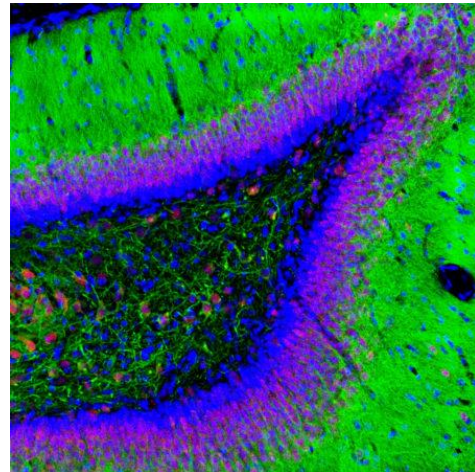
Application Notes

Description/Data

NeuN has become very widely used as a reliable neuronal marker, apparently binding to neurons in all vertebrates tested. The vast majority of neurons are strongly NeuN positive, and NeuN immunoreactivity has therefore been widely used to identify neurons. The differing protein isoforms of FOX3 result from alternate splicing of two exons which code for an insert close to the C-terminus and a short C-terminal extension. The extension includes a C-terminal proline-tyrosine sequence preceded by hydrophobic amino acids (Φ-PY) which is known to target proteins to the nucleus, apparently accounting for FOX3 being present in both nuclei and cytoplasm in certain neurons.

This antibody was raised against a recombinant human FOX3 construct based only on the N-terminal sequence, not including the RRM domain and C-terminal regions. The N-terminal regions of FOX1, FOX2 and FOX3 are relatively poorly conserved so we were able to obtain antibodies which recognized FOX3 but not FOX2 or FOX1.

Image: Immunofluorescent analysis of a section of adult rat hippocampus stained with goat pAb to Fox3/NeuN, GT22106, dilution 1:2,000 in red, costained with mouse monoclonal antibody to MAP2, dilution 1:2,000, in green. Nuclear DNA was revealed in blue using the DAPI stain. Following transcardial perfusion of mouse with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45µM, and free-floating sections were stained with the above antibodies. The Fox3/NeuN antibody stains the nuclei of neurons in the hippocampus while the MAP2 antibody stains the dendritic processes of neurons.



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