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Alexa488-labeled Antibody to trkA
RABBIT POLYCLONAL

Catalog Number: FL-N03
Quantity: 100 micrograms
Format: 50% PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), 50% glycerol; no preservative.
Host: Rabbit
Immunogen: extracellular fragment from rat trkA (amino acids 1-416)

Background:

During neuronal development, neurotrophic factors have a pivotal role in the organization of the nervous system by selecting which neurons will survive and terminally differentiate. These effects are mediated by specific neurotrophin receptors. Tyrosine kinase A, known as trkA (the high-affinity NGF receptor) is responsible for the retrograde transport of NGF, neuron survival and gene regulation of the chronic forebrain neurons, and is required for normal development of the peripheral nervous system as well as the function of central forebrain neurons.

Specificity and Preparation:

This antibody recognizes rat trkA (high affinity nerve growth factor receptor). Histochemical antisera to trkA was developed in rabbit using the extracellular fragment from rat trkA (amino acids 1-416); this product has been purified by protein A chromatography. It has been conjugated to the fluorescent dye Alexa488. The antibody is routinely tested by western blot.

Usage and Storage:

Applications include immunohistochemistry (frozen sections; 1:1,000 or 1:10,000),^{1,3} immunoprecipitation (2.5 μ g antibody per 30 μ l Protein-A Sepharose),² and immunoblotting (1 μ g/ml).² Gently spin down material before use; 5-10 seconds in a microfuge should be adequate. The material can be handled safely using normal laboratory precautions. See Lot Number for lot-specific storage instructions.

References:

1. Jones MG, Munson JB, Thompson SW. (1999) A role for nerve growth factor in sympathetic sprouting in rat dorsal root ganglia. *Pain* 79(1):21-29.
2. Clary DO, Weskamp G, Austin LR, Reichardt LF. (1994) TrkA cross-linking mimics neuronal responses to nerve growth factor. *Mol Biol Cell* 5:549-563.
3. Sobreviela T, Clary DO, Reichardt LF, Brandabur MM, Kordower JH, Mufson EJ. (1994) TrkA-immunoreactive profiles in the central nervous system: colocalization with neurons containing p75 nerve growth factor receptor, choline acetyltransferase, and serotonin. *J Comp Neurol* 350:587-611.

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