

Product Information

Anti-Neuronal Specific Enolase

produced in rabbit, affinity isolated antibody

Catalog Number **N0649**

Synonym: Anti-NSE

Product Description

Anti-Neuronal Specific Enolase is produced in rabbit using as immunogen NSE from human brain.

Anti-Neuronal Specific Enolase specifically recognizes the NSE enzyme and may be used for the detection of the NSE enzyme in human pancreas and colon by immunohistochemistry⁸ on frozen sections. This antibody reacts with the γ/γ enolase and α/α enolase in crossed immunoelectrophoresis. This antibody labels neurons of the brain, peripheral nerve tissue, and pancreatic Islets of Langerhans. Labeling is also observed in striated and smooth muscle cells.

Neuronal Specific Enolase (NSE), an isozyme of the glycolytic enzyme enolase, is expressed in all neuronal cell types as well as neuroendocrine cells. Expression appears to be a late event in neuronal differentiation. Tumors of the nervous system, or tumors of neuroendocrine origin, contain NSE, thus implicating NSE as a possible tumor marker.¹ Visualization of NSE protein marks neuronal soma² in studies following acute neurological injury.^{3,4} NSE expression is also a marker of synaptic function acquisition.^{5,6}

Reagent

Supplied as 6 mL of rabbit antiserum in ready-to-use form. The antibody has been pre-diluted in 20 mM HEPES, containing 135 mM NaCl, 1% BSA, and 0.09% sodium azide.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the antibody at 2-8 °C. **Do not freeze the antibody.** If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

Product Profile

The product is supplied at the optimal concentration for immunohistochemistry using PAP (Peroxidase Anti-Peroxidase) reagents.

References

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3. Emmerling, M.R., et al., *Ann NY Acad Sci*, **903**, 118-122 (2000).
4. Ding, M., et al., *Neurochem. Int.*, **36**, 313-318 (2000).
5. Vannucchi, M.G., et al., *J. Comp. Neurol.*, **425**, 369-381 (2000).
6. Coronas, V., et al., *Neuroscience*, **98**, 213-219 (2000).
7. Marangos, P.J. and Schmechel, D.E., *Annu. Rev. Neurosci.*, **10**, 269 (1987)
8. Okada, T., et al., Quantitative and immunohistochemical analysis of neuronal types in the mouse caudal nucleus tractus solitarius: Focus on GABAergic neurons. *J. Chem. Neuroanat.* **35**, 275-284 (2008).

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