

Pure Neuron Specific Enolase (NSE)

To compliment the antiserum to NSE we now supply, Polysciences introduces the pure antigens. The material provided is prepared from rat or human brain (NSE-R and NSE-H). The NSE is prepared by a procedure involving $(\text{NH}_4)_2\text{SO}_4$ precipitation, gel filtration, ion exchange chromatography and isoelectric focusing. Our NSE is, therefore greater than 99% pure as judged by SDS polyacrylamide gel electrophoresis.

The specific activity of each antigen is greater than 60 units per mg of protein. (1 unit = 1 μ mole of phosphoenol pyruvate formed per minute per mg protein at 25°C). Both NSE-R and NSE-H are highly reactive with the anti-rat NSE and anti-human NSE offered by Polysciences.

The pure antigen will be highly useful for the adsorption of antiserum to ascertain specificity of immunostaining results. It will also be of value for studies where pure antigen is required for band identification in gel systems, as well as for basic biochemical studies.

Each vial contains 50 μ l of a 1 mg/ml solution (determined by Lowry using BSA as standard) of NSE-R or NSE-H that has been lyophilized. The protein solutions were in 10 mM Tris-phosphate buffer, 3 mM MgSO_4 (pH 7.3) before lyophilization. Resuspension of the vial contents in 50 μ l of distilled water should, therefore, reconstitute the original 1 mg/ml protein solution in the above mentioned buffer.

Extreme care must be used in resuspension of the lyophilized material since it is a very light powder that tends to disperse in air due to a slight electrostatic charge imparted to it during lyophilization. The vial top should, therefore, be removed slowly and carefully in a draft free environment and the sides of the tube carefully washed with the resuspension medium (water) in order to insure that all of the protein is dissolved. Store at -20°C. Store the dissolved protein solution at -20°C. The resulting solution will be stable for greater than 1 year.

Warning:

Although the products listed in this data sheets are not known to be hazardous, exercise care in handling. For research only. Not for diagnostic procedures.

References:

1. B.W. Moore & D. McGregor, *J. Biol. Chem.*, **240**, 1647 (1965).
2. L. Fletcher, et al., *Biochim. Biophys. Acta*, **452**, 242 (1976).
3. E. Bock, et al., *Neurochem.*, **30**, 181 (1978).
4. P.J. Marangos, et al., *Brain Res.*, **150**, 117 (1978).
5. P.J. Marangos & D.E. Schmechel, *Essays in Neurochemistry and Neuropharmacology*, **4**, 211-247 (1980).
(John Wiley & Sons Ltd.)
6. D.E. Schmechel & P.J. Marangos, *Current Methods in Cellular Neurobiology*, J.L. Barker & J.R. McKelvy, Eds., **1**, 1-62 (1983) (Wiley Interscience).

Ordering Information:

Cat. #	Description	Size
17435A	Neuronal Specific Enolase-Rat, NSE-R, Lyophilized (Dialyze against Tris free buffer for RIA)	50µg
17436	Neuronal Specific Enolase-Human, NSE-H, Lyophilized	50µg
16625	Anti-Rat-NSE in Rabbit, Lyophilized	150µl 350µl
17437	Anti-Human-NSE in Rabbit, Lyophilized	100µl 200µl

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