

NSE Polyclonal Antibody

Catalog NumberPA5-29732

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human, Mouse, Rat
Host/Isotope	Rabbit / IgG	Tested Applications	
Class	Polyclonal	Immunohistochemistry (Frozen) (IHC (F))	1:100-1:1,000
Type	Antibody	Western Blot (WB)	1:1,000-1:10,000
Immunogen	Recombinant fragment corresponding to a region within amino acids 230 and 434 of Human ENO2	Immunocytochemistry (ICC/IF)	1:100-1:1,000
Conjugate	Unconjugated	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Form	Liquid		
Concentration	1 mg/mL		
Purification	Antigen affinity chromatography		
Storage buffer	0.1M tris glycine, pH 7, with 10% glycerol		
Contains	0.01% thimerosal		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

**Product specific information**

Recommended positive controls: 293T, A431, H1299, HepG2, Molt-4, Raji, mouse brain. Predicted reactivity: Mouse (99%), Rat (99%), Zebrafish (89%), Chicken (96%), Rhesus Monkey (100%), Bovine (99%). Store product as a concentrated solution. Centrifuge briefly prior to opening the vial.

**Background/Target Information**

Neuron specific enolase (NSE, ENO1, ENO2, ENO3) is an enzyme that catalyzes the conversion of 2-phosphoglycerate to phosphoenolpyruvate in the glycolytic pathway, and the reverse reaction in gluconeogenesis. NSE has a high stability in biological fluids and can easily diffuse to the extracellular medium and cerebrospinal fluid (CSF) when neuronal membranes are injured. NSE is one of three mammalian enolases, which are also known as ENO1, ENO2, and ENO3 or alternately as enolase alpha, beta and gamma. The alpha-subunit is expressed in most tissues, the beta-subunit only in muscle, and the gamma-subunit is expressed primarily in neurons, in normal and in neoplastic neuroendocrine cells. Co-expression of NSE and chromogranin A is common in neuroendocrine neoplasms. Since neurons require a great deal of energy, they are very rich in glycolytic enzymes such as GAPDH and NSE. Antibodies to NSE protein are useful to identify neuronal cell bodies, developing neuronal lineage and neuroendocrine cells. Release of NSE from damaged neurons into CSF and blood has also been used as a biomarker of neuronal injury. NSE is used clinically as a sensitive and useful marker of neuronal damage in several neurological disorders including stroke, hypoxic brain damage, status epilepticus, Creutzfeldt-Jakob disease, and herpetic encephalitis. Further, NSE is found in elevated concentrations in plasma and certain neoplasias that include pediatric neuroblastoma and small cell lung cancer.

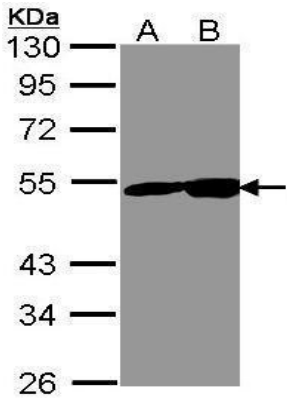
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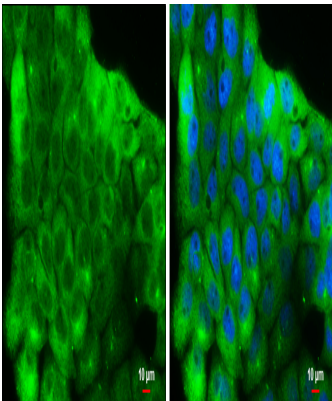
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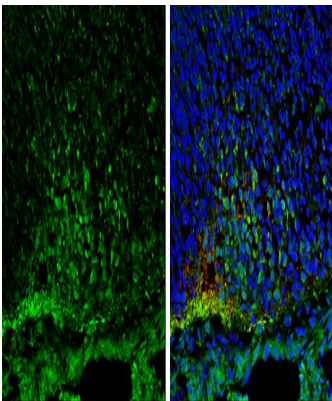
Product Images For NSE Polyclonal Antibody



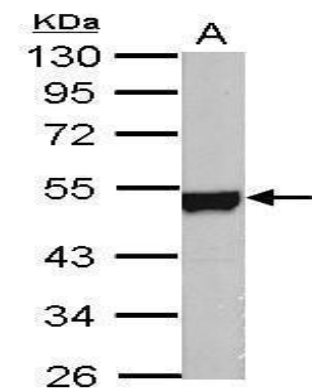
**NSE Antibody (PA5-29732) in WB**  
Western Blot using NSE Polyclonal Antibody (Product # PA5-29732). Sample (30 µg of whole cell lysate). Lane A: 293T. Lane B: A431. 10% SDS PAGE. NSE Polyclonal Antibody (Product # PA5-29732) diluted at 1:1,000.



**NSE Antibody (PA5-29732) in ICC/IF**  
Immunocytochemistry-Immunofluorescence analysis of NSE was performed in A431 cells fixed in 4% paraformaldehyde at RT for 15 min. Green: NSE Polyclonal Antibody (Product # PA5-29732) diluted at 1:500. Blue: Hoechst 33342 staining.



**NSE Antibody (PA5-29732) in IHC (F)**  
Immunohistochemistry (Frozen) analysis of NSE was performed in frozen sectioned E13.5 Rat brain tissue using NSE Polyclonal Antibody (Product # PA5-29732) at a dilution of 1:250 (Green). Red: beta Tubulin 3/ TUJ1, a mature neuron marker, stained by beta Tubulin 3/ TUJ1 antibody diluted at 1:500. Blue: Fluoroshield with DAPI.



**NSE Antibody (PA5-29732) in WB**  
Western Blot using NSE Polyclonal Antibody (Product # PA5-29732). Sample (50 µg of whole cell lysate). Lane A: mouse brain. 10% SDS PAGE. NSE Polyclonal Antibody (Product # PA5-29732) diluted at 1:10,000.

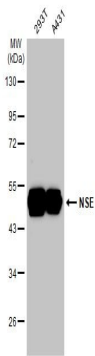
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NSE Antibody (PA5-29732) in WB

Western Blot using NSE Polyclonal Antibody (Product # PA5-29732). Various whole cell extracts (30 µg) were separated by 10% SDS-PAGE, and the membrane was blotted with NSE Polyclonal Antibody (Product # PA5-29732) diluted at 1:1,000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.



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