

ARG52377 anti-NSE / Neuron Specific Enolase antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes NSE / Neuron Specific Enolase
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	NSE / Neuron Specific Enolase
Species	Human
Immunogen	Recombinant human NSE expressed in and purified from E. coli
Conjugation	Un-conjugated
Alternate Names	Neural enolase; NSE; Enolase 2; Gamma-enolase; 2-phospho-D-glycerate hydro-lyase; HEL-S-279; Neuron-specific enolase; EC 4.2.1.11

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:500
	WB	1:1000 - 1:5000

Application Note Specific for the ~47kDa NSE protein.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

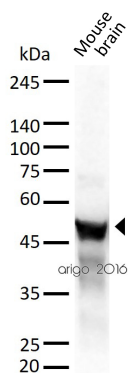
Properties

Form	Liquid
Purification	Neat Serum
Buffer	Neat serum
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

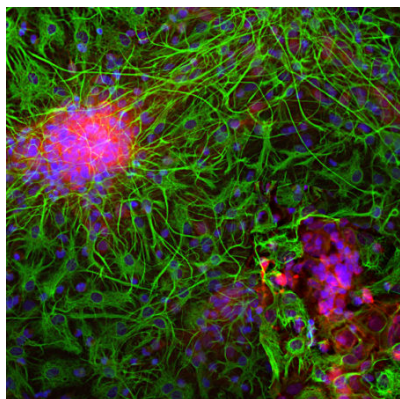
Gene Symbol	ENO2
Gene Full Name	enolase 2 (gamma, neuronal)
Background	Neuron specific enolase (NSE) is an enzyme which catalyzes the conversion of 2-phosphoglycerate to phosphoenolpyruvate in the glycolytic pathway, and also the reverse reaction in gluconeogenesis. It is one of three mammalian enolases, which are also known as ENO1, ENO2, and ENO3 or alternately as enolase alpha, beta and gamma. The three enolases have different cell type specific expression patterns, so that antibodies to them are useful cell type specific markers.(MacAlesse et al., 1988). NSE corresponds to ENO2 or enolase gamma and is heavily expressed in neuronal cells. ENO1 is also known as enolase alpha and as non-neuronal enolase. The third enolase, ENO3 or enolase beta, is expressed in muscle cells. Since neurons require a great deal of energy, they are very rich in glycolytic enzymes such as GAPDH and NSE. Antibodies to this protein are therefore 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 .
Highlight	Related products: NSE antibodies ; Anti-Rabbit IgG secondary antibodies ; Related news: Neuronal Development Marker
Research Area	Cancer antibody; Gene Regulation antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	47 kDa

Images



ARG52377 anti-NSE / Neuron Specific Enolase antibody WB image

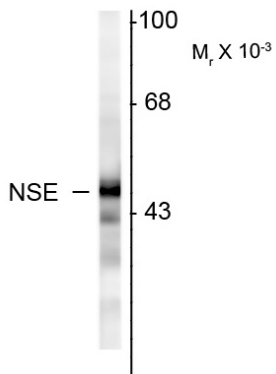
Western blot: 30 µg of Mouse brain lysate stained with ARG52377 anti-NSE / Neuron Specific Enolase antibody at 1:2000 dilution.



ARG52377 anti-NSE / Neuron Specific Enolase antibody ICC/IF image

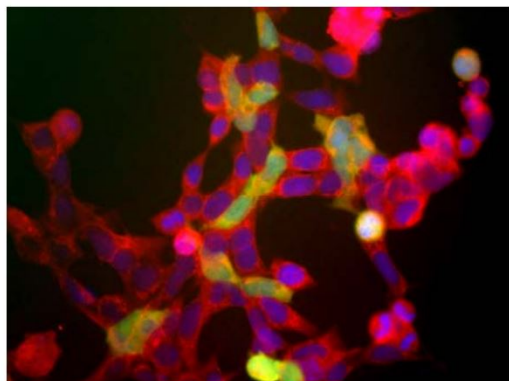
Immunofluorescence: Mixed cortical neuron-glia cell culture from E20 Rat stained with ARG52377 anti-NSE / Neuron Specific Enolase antibody (red) at 1:500 dilution, and costained with anti-GFAP antibody (green) at 1:5000 dilution. Hoechst (blue) for nuclear staining.

The NSE antibody labels protein expressed in neuronal cells, while the GFAP antibody stains intermediate filaments in astrocytic and certain other glial cells.



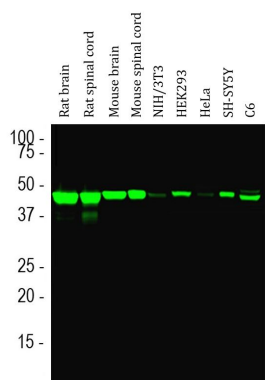
ARG52377 anti-NSE / Neuron Specific Enolase antibody WB image

Western blot: Rat cortex homogenate showing specific immunolabeling of the ~ 47k NSE protein stained with ARG52377 anti-NSE / Neuron Specific Enolase antibody.



ARG52377 anti-NSE / Neuron Specific Enolase antibody ICC/IF image

Immunofluorescence: HEK 293 cells showing staining with ARG52377 anti-NSE / Neuron Specific Enolase antibody (red). The green channels shows staining with ARG52465 anti-UCHL1 antibody [BH7].



ARG52377 anti-NSE / Neuron Specific Enolase antibody WB image

Western blot: Rat brain, Rat spinal cord, Mouse brain, Mouse spinal cord, NIH/3T3, HEK293, HeLa, SH-SY5Y and C6 cell lysates stained with ARG52377 anti-NSE / Neuron Specific Enolase antibody (green) at 1:5000 dilution.

A single band at about 47 kDa corresponds to the NSE protein, seen only in extracts containing neurons or neuronal lineage cells.