

Anti-NSE antibody - Neuronal Marker ab53025

★★★★★ [11 Abreviews](#) [58 References](#) [4 Images](#)

Overview

Product name	Anti-NSE antibody - Neuronal Marker
Description	Rabbit polyclonal to NSE - Neuronal Marker
Host species	Rabbit
Tested applications	Suitable for: ELISA, ICC/IF, WB, IHC-P, IHC-FoFr, Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Human, Pig
Immunogen	Synthetic peptide derived from human NSE
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituents: 50% Glycerol, 0.87% Sodium chloride, PBS</p>
Purity	Without Mg+2 and Ca+2
Purification notes	Immunogen affinity purified
Clonality	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Isotype	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab53025 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
ICC/IF	★★★★★ (1)	Use a concentration of 1 - 5 µg/ml.
WB	★★★★★ (3)	1/500 - 1/1000. Predicted molecular weight: 47 kDa.
IHC-P	★★★★★ (5)	Use at an assay dependent concentration.
IHC-FoFr	★★★★★ (1)	Use at an assay dependent concentration.
Flow Cyt	★★★★★ (1)	Use at an assay dependent concentration. ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.

Target

Function

Has neurotrophic and neuroprotective properties on a broad spectrum of central nervous system (CNS) neurons. Binds, in a calcium-dependent manner, to cultured neocortical neurons and promotes cell survival.

Tissue specificity

The alpha/alpha homodimer is expressed in embryo and in most adult tissues. The alpha/beta heterodimer and the beta/beta homodimer are found in striated muscle, and the alpha/gamma heterodimer and the gamma/gamma homodimer in neurons.

Pathway

Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 4/5.

Sequence similarities

Belongs to the enolase family.

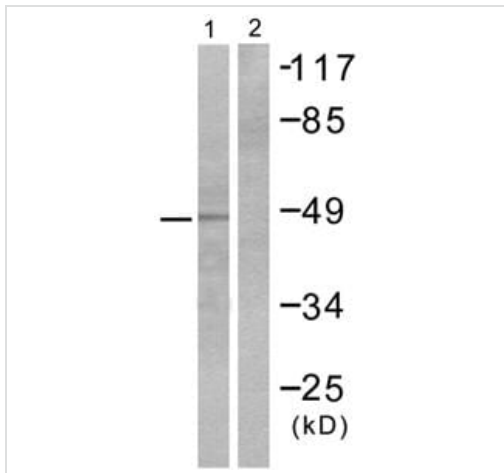
Developmental stage

During ontogenesis, there is a transition from the alpha/alpha homodimer to the alpha/beta heterodimer in striated muscle cells, and to the alpha/gamma heterodimer in nerve cells.

Cellular localization

Cytoplasm. Cell membrane. Can translocate to the plasma membrane in either the homodimeric (alpha/alpha) or heterodimeric (alpha/gamma) form.

Images



Western blot - Anti-NSE antibody - Neuronal Marker (ab53025)

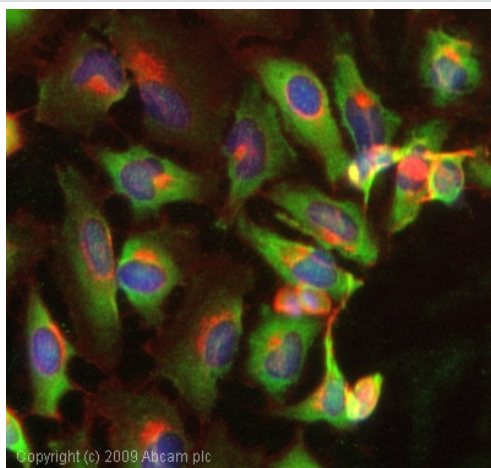
All lanes : Anti-NSE antibody - Neuronal Marker (ab53025) at 1/500 dilution

Lane 1 : Extracts from HepG2 cells with no immunizing peptide

Lane 2 : Extracts from HepG2 cells with immunizing peptide

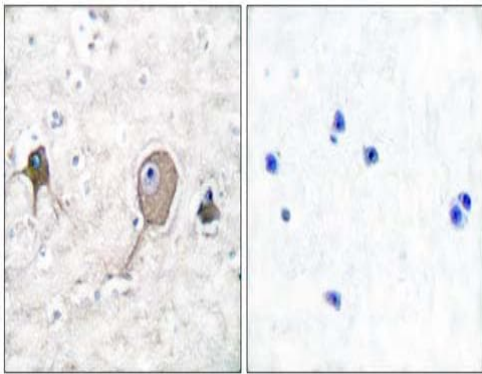
Predicted band size: 47 kDa

Observed band size: 47 kDa



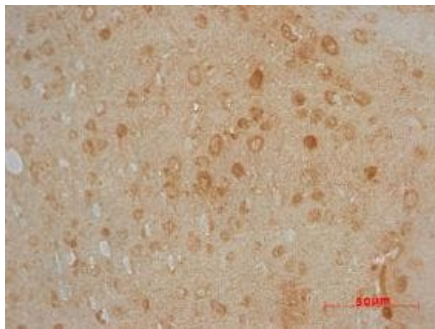
Immunocytochemistry/ Immunofluorescence - Anti-NSE antibody - Neuronal Marker (ab53025)

ICC/IF image of ab53025 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab53025, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemical analysis of paraffin-embedded human brain tissue using ab53025 at 1/50-1/100 dilution. Left: without immunizing peptide; Right: with immunizing peptide

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NSE antibody - Neuronal Marker (ab53025)



ab53025 staining NSE in mouse brain tissue section by Immunohistochemistry (PFA-perfusion fixed frozen tissue sections). Tissues were collected from mice in each group at 10 weeks. Mice were euthanized, the brains were exposed and removed from the body. Then the brain was cut, on ice and fixed in 4% polyformaldehyde or glutaraldehyde solution for histological examination. The primary antibody was used at 1/75 dilution in PBS and incubated with sample for 2 hours at 37°C. A HRP-conjugated secondary antibody was used at for 1hr at 37°C in a humidity box.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NSE antibody - Neuronal Marker (ab53025)

Image from Yu Yang, et. al. Mol. Cell. Proteomics, Mar 2009 (Fig 6).

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