abcam

Product datasheet

Anti-NSE antibody [EPR12483] ab180943

Recombinant RabMAb

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Overview

Product name	Anti-NSE antibody [EPR12483]
Description	Rabbit monoclonal [EPR12483] to NSE
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF, WB, IP
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Fetal brain, HeLa, SH-SY5Y, U87-MG and HepG2 whole cell lysate (**ab7900**); U87-MG cells. ICC/IF: NIH/3T3, Ramos and Raji cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR12483
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab180943 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
Flow Cyt (Intra)		1/10. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/100.
WB		1/1000 - 1/10000. Detects a band of approximately 47 kDa (predicted molecular weight: 47 kDa).
IP		1/50.

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.

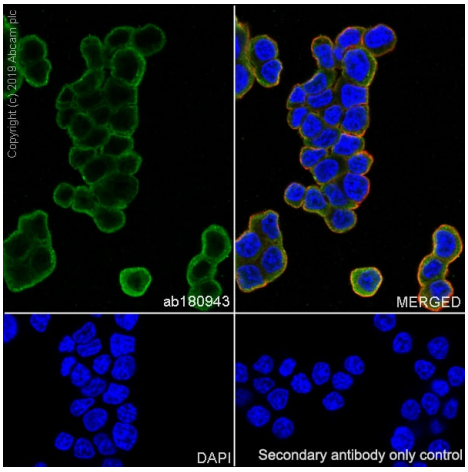
Pathway Carbohydrate degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 4/5.

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.

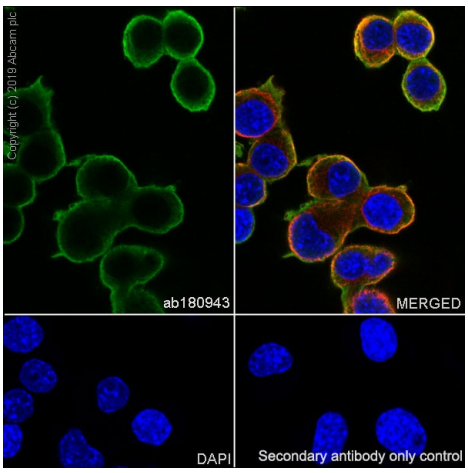
Cellular localization Cytoplasm. Cell membrane. Can translocate to the plasma membrane in either the homodimeric (alpha/alpha) or heterodimeric (alpha/gamma) form.

Images



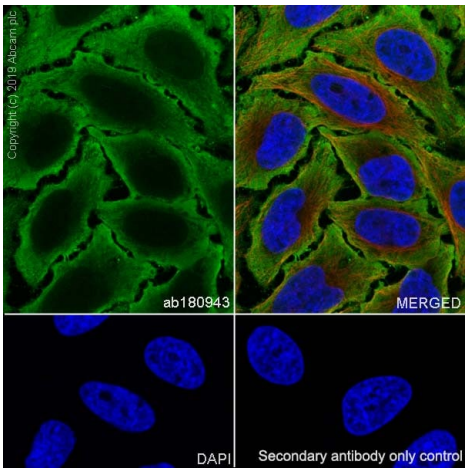
Immunocytochemistry/ Immunofluorescence - Anti-NSE antibody [EPR12483] (ab180943)

Immunocytochemistry/ Immunofluorescence analysis of NIH/3T3 (mouse embryonic fibroblast) cells labeling alpha smooth muscle Actin with purified **ab150301** at 1/100(1.65 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



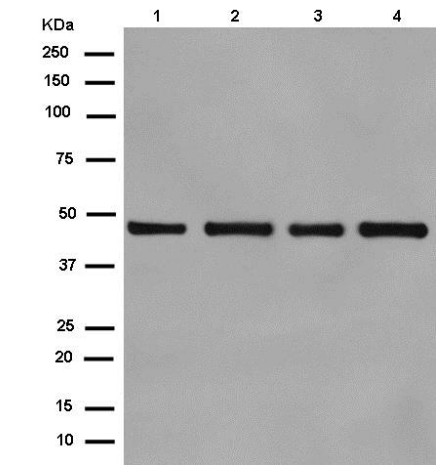
Immunocytochemistry/ Immunofluorescence - Anti-NSE antibody [EPR12483] (ab180943)

Immunocytochemistry/ Immunofluorescence analysis of Ramos (human Burkitt's lymphoma B lymphocyte) cells labeling Tcl1 with purified **ab225718** at 1/50 (2.6 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunocytochemistry/ Immunofluorescence - Anti-NSE antibody [EPR12483] (ab180943)

Immunocytochemistry/ Immunofluorescence analysis of Raji (human Burkitt's lymphoma B lymphocyte) cells labeling CD23 with purified **ab135386** at 1/25 (7.48 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-NSE antibody [EPR12483] (ab180943)

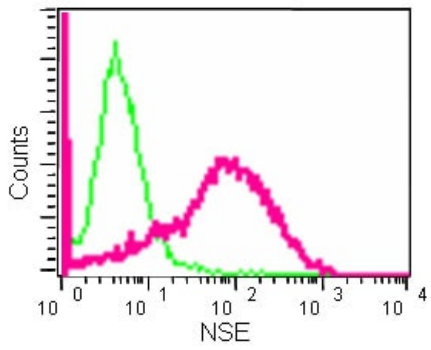
All lanes : Anti-NSE antibody [EPR12483] (ab180943) at 1/5000 dilution

Lane 1 : Fetal brain lysate
Lane 2 : HeLa cell lysate
Lane 3 : SH-SY5Y cell lysate
Lane 4 : U87-MG cell lysate

Lysates/proteins at 20 µg per lane.

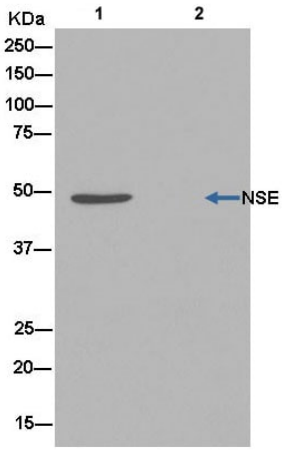
Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 47 kDa
Observed band size: 47 kDa



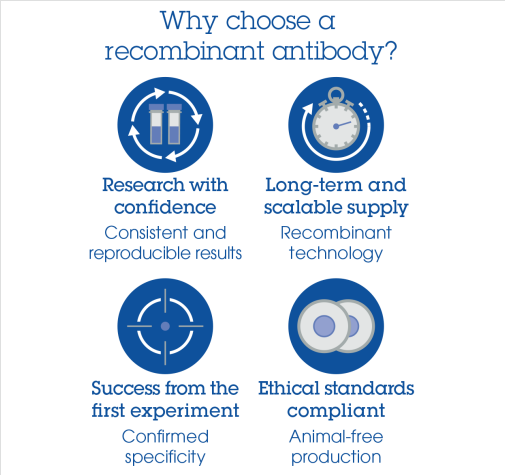
Flow Cytometry (Intracellular) - Anti-NSE antibody [EPR12483] (ab180943)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed U87-MG cells labeling NSE with ab180943 at 1/10 dilution (red) compared to a Rabbit monoclonal IgG Isotype control (green), followed by Goat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.



Immunoprecipitation - Anti-NSE antibody [EPR12483] (ab180943)

Western blot analysis of HepG2 cell lysate immunoprecipitated using ab180943 at 1/50 dilution (Lane 1). Lane 2: Negative control. Anti-Rabbit IgG (HRP) secondary antibody, specific to the non-reduced form of IgG, used at 1/1500 dilution.



Anti-NSE antibody [EPR12483] (ab180943)

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