ARG30006
NSC and Astrocyte Marker Antibody Duo (GFAP, Nestin)

Package: 1 pair
Store at: -20°C

Component

Cat. No.	Component Name	Host clonality	Reactivity	Application	Package
ARG52312	anti-GFAP antibody	Rabbit pAb	Ms, Rat	ICC/IF, IHC-P, IHC-Fr, IHC-FoFr , WB	50 µl
ARG52345	anti-Nestin antibody [4D11]	Mouse mAb	Hu, Ms, Rat	ICC/IF, IHC-P, WB	50 µl

Summary

Product Description

Nestin is an intermediate filament protein expressed in dividing cells during the early development stages of nervous system and is utilized as a neural stem cell marker. The neural stem cells loss Nestin expression once the cell fate is determined. Following gliogenesis, Nestin is replaced by cell type-specific intermediate filaments, e.g., GFAP for astrocytes.

Glial fibrillary acidic protein (GFAP) is the major intermediate filament protein in mature astrocytes, a main type of glial cells in the central nervous system (CNS). GFAP is used as a marker to distinguish astrocytes from other glial cells during development.

arigo's ARG30006 NSC and Astrocyte Marker Antibody Duo (GFAP, Nestin) is excellent for distinguishing neural stem cells and mature astrocytes. Moreover, as GFAP is also expressed in adult neural progenitors. This antibody duo is also excellent for identification of adult neural progenitors in brain tissue.

Related news:
Astrocyte-to-neuron conversion for Parkinson's disease treatment

Target Name

NSC and Astrocyte Marker

Alternate Names

NSC and Astrocyte Marker antibody; GFAP antibody; Nestin antibody

Properties

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 Full Name

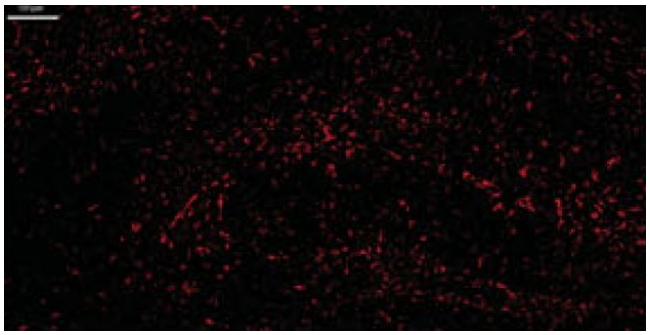
Antibody Duo for NSC and Astrocyte Marker (GFAP, Nestin)

Highlight

Related Product:
anti-GFAP antibody;
anti-Nestin antibody;

Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Controls and Markers antibody; Developmental Biology antibody; Neuroscience antibody; Signaling Transduction antibody

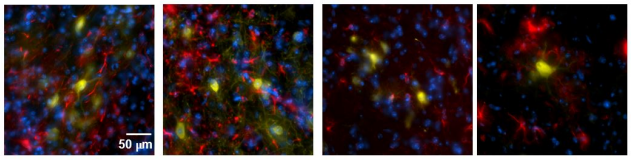
Images



ARG52312 anti-GFAP antibody IHC-Fr image

Immunohistochemistry: Frozen Mouse hippocampus. stained with ARG52312 anti-GFAP antibody.

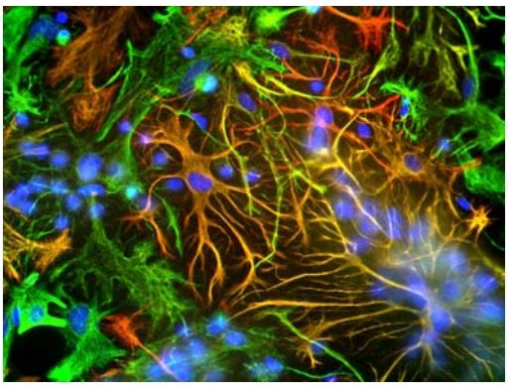
From Tang M et al. Pharm Biol. (2022), doi: 10.1080/13880209.2022.2108064, Fig. 4. A.



ARG52312 anti-GFAP antibody IHC-Fr image

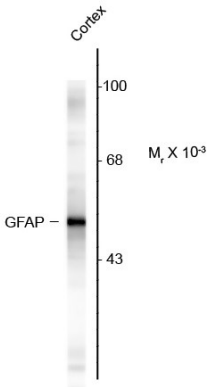
Immunohistochemistry: Frozen section of Mouse C57BL/6Jnarl brain tissue. The tissue section was fixed by 4% formalin and blocked with BSA with 3% Goat serum, at RT for 1 hour. Tissue section was then stained with ARG52312 anti-GFAP antibody at 1:500 dilution, in PBS with 1% Goat serum, overnight at 4°C.

Blue: DAPI
Yellow: Venus reporter gene
Red: GFAP



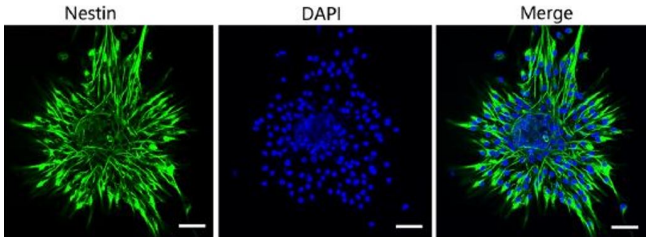
ARG52312 anti-GFAP antibody ICC/IF image

Immunofluorescence: Cultured neurons and glia stained with ARG52312 anti-GFAP antibody (red) and ARG52468 anti-Vimentin antibody (green) showing specific labeling of GFAP (red) and vimentin (green). Cells containing GFAP and vimentin appear yellow



ARG52312 anti-GFAP antibody WB image

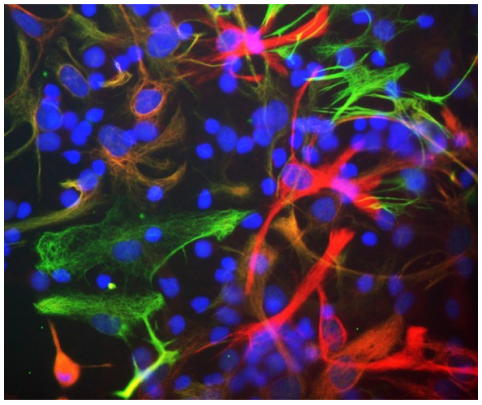
Western blot: Rat cortex lysate showing specific immunolabeling of the ~50 kDa GFAP protein stained with ARG52312 anti-GFAP antibody.



ARG52345 anti-Nestin antibody [4D11] ICC/IF image

Immunofluorescence: Human hippocampal neural stem cells stained with ARG52345 anti-Nestin antibody [4D11].

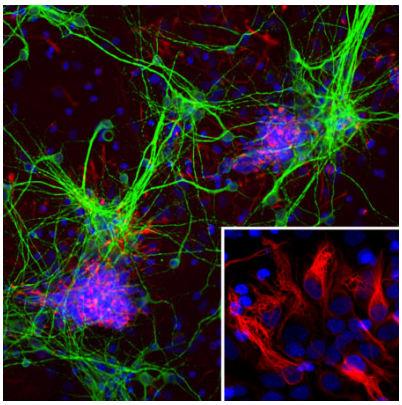
From Yang Y et al. Hum Exp Toxicol- (2021), doi: 10.1177/09603271211045959, Fig. 3.



ARG52345 anti-Nestin antibody [4D11] ICC/IF image

Immunofluorescence: Cultured neonatal Rat neurons and glia showing nestin labeling in red (ARG52345 Nestin antibody [4D11]) and vimentin (ARG52468 anti-Vimentin antibody) in green.

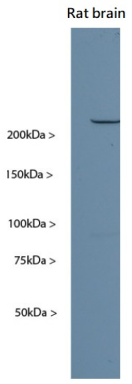
Astrocytes and neuronal stem cells stain strongly and specifically in a clearly filamentous fashion with the anti-Nestin antibody. The presence of Nestin indicates that the cells are developing astrocytes, neuroblasts or undifferentiated neural stem cells.



ARG52345 anti-Nestin antibody [4D11] ICC/IF image

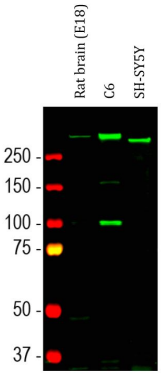
Immunofluorescence: Cortical neuron-glial cells from E20 Rat stained with ARG52345 anti-Nestin antibody [4D11] (red) at 1:500 dilution and costained with ARG52328 anti-MAP2 antibody (green) at 1:5000 dilution. Hoechst (blue) for nuclear staining.

The Nestin antibody labels developing astrocytes and neuronal stem cells in a clearly filamentous fashion, while the MAP2 antibody stains dendrites and perikarya of mature neurons.



ARG52345 anti-Nestin antibody [4D11] WB image

Western blot: Rat brain (P18) homogenate stained with ARG52345 anti-Nestin antibody [4D11].



ARG52345 anti-Nestin antibody [4D11] WB image

Western blot: Rat brain (embryonic, E18), C6 and SH-SY5Y cell lysates stained with ARG52345 anti-Nestin antibody [4D11] (green) at 1:500 dilution.