

ARG30146 Neural Stem / Progenitor Cell Marker Antibody Duo (Nestin, Vimentin)

Package: 1 pair
Store at: -20°C

Component

Cat. No.	Component Name	Host clonality	Reactivity	Application	Package
ARG52345	anti-Nestin antibody [4D11]	Mouse mAb	Hu, Ms, Rat	ICC/IF, IHC-P, WB	50 µl
ARG52468	anti-Vimentin antibody	Chicken pAb	Hu, Ms, Rat	ICC/IF, IHC-FoFr, IHC-Fr, WB	50 µl

Summary

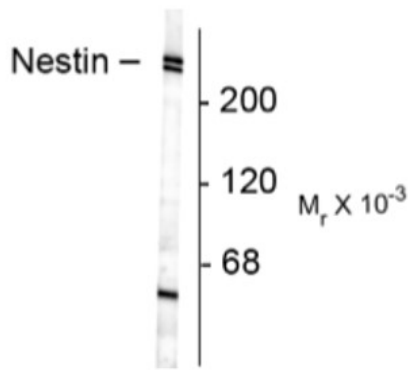
Product Description	<p>Nestin is an intermediate filament protein expressed in dividing cells during the early development stages of nervous system and is utilized as a neural stem cell marker. The neural stem cells loss Nestin expression once the cell fate is determined.</p> <p>Vimentin is a type III intermediate filament protein present in many cell types of mesodermal origin as well as some ectodermal cells, including neural stem cells. Vimentin is expressed in transient cell type radial glia which disappear after maturation.</p> <p>arigo's ARG30146 Neural Stem/Progenitor Cell Marker Antibody Duo (Nestin, Vimentin) is excellent for identification of neural stem cells and neural progenitors.</p>
Target Name	Neural Stem / Progenitor Cell Marker
Alternate Names	Neural Stem / Progenitor Cell Marker antibody; Nestin antibody; Vimentin 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.

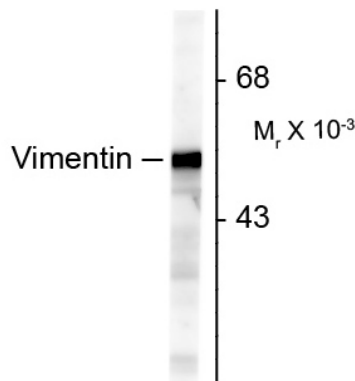
Bioinformation

Gene Full Name	Antibody Duo for Neural Stem / Progenitor Cell Marker (Nestin, Vimentin)
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Controls and Markers antibody; Developmental Biology antibody; Neuroscience antibody; Signaling Transduction antibody



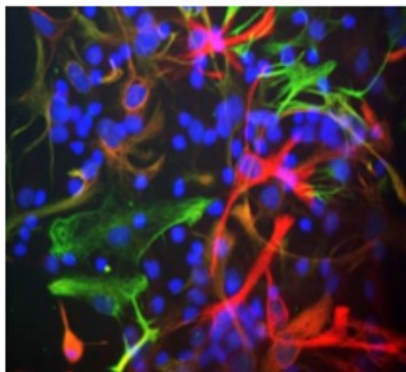
ARG52345 anti-Nestin antibody [4D11] WB image

Western Blot: neonatal rat brain lysate stained with Nestin antibody (ARG52345) showing specific immunolabeling of the ~220-240 kDa nestin doublet.



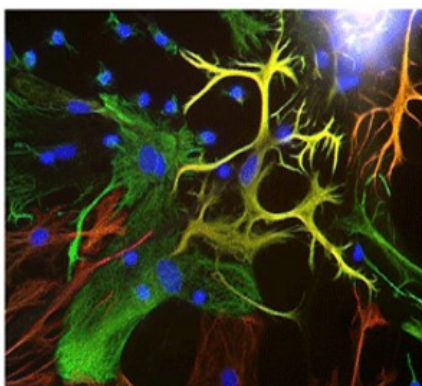
ARG52468 anti-Vimentin antibody WB image

Western Blot: NIH 3T3 cells showing specific immunolabeling of the ~50k Vimentin protein stained with ARG52468 Vimentin antibody.



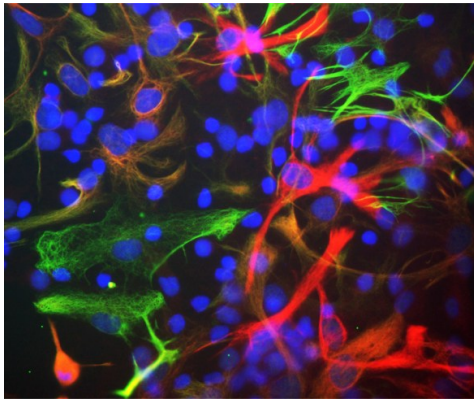
ARG52345 anti-Nestin antibody [4D11] ICC/IF image

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.



ARG52468 anti-Vimentin antibody ICC/IF image

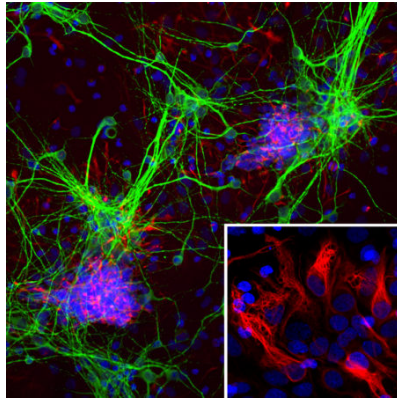
Immunofluorescence: Mixed neuron/glial cultures stained with anti-Vimentin (green) and rabbit anti-GFAP antibody (ARG52312) (red). Vimentin is expressed alone in fibroblastic and endothelial cells, which are the flattened cells in the middle of the image which appear green. Astrocytes may express primarily GFAP, or GFAP and vimentin, and so appear red (GFAP only) or golden yellow (GFAP and Vimentin). In cells which express both GFAP and vimentin, the two proteins assemble to produce heteropolymer filaments.



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.

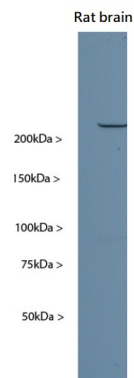
Astrocytes and neuronal stem cells stain strongly and specifically in a clearly filamentous fashion with the anti-Nestin antibody. The presence of Nestin indicates that the cells are developing astrocytes, neuroblasts or undifferentiated neural stem cells.



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

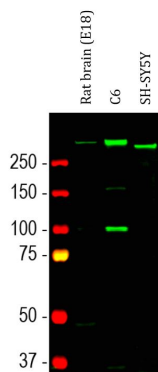
Immunofluorescence: Cortical neuron-glial cells from E20 Rat stained with ARG52345 anti-Nestin antibody [4D11] (red) at 1:500 dilution and costained with [ARG52328](#) anti-MAP2 antibody (green) at 1:5000 dilution. Hoechst (blue) for nuclear staining.

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.



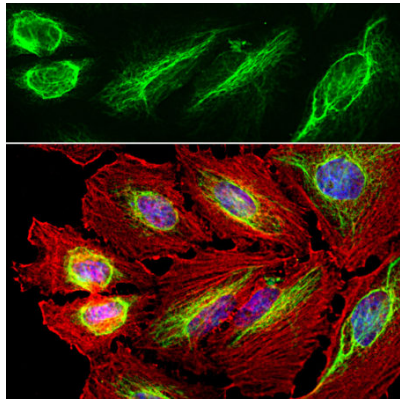
ARG52345 anti-Nestin antibody [4D11] WB image

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



ARG52345 anti-Nestin antibody [4D11] WB image

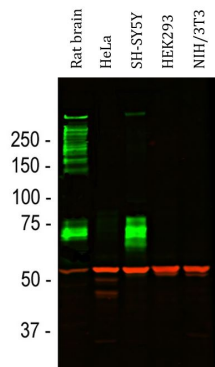
Western blot: Rat brain (embryonic, E18), C6 and SH-SY5Y cell lysates stained with ARG52345 anti-Nestin antibody [4D11] (green) at 1:500 dilution.



ARG52468 anti-Vimentin antibody ICC/IF image

Immunofluorescence: HeLa cells stained with ARG52468 anti-Vimentin antibody (green) at 1:10000 dilution, and costained with anti-Actin antibody (red) at 1:500 dilution. DAPI (blue) for nuclear staining.

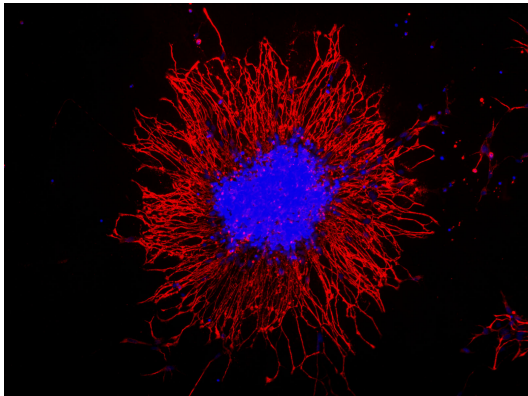
The Vimentin antibody stains the intermediate filament network while the Actin antibody labels the submembranous cytoskeleton, stress fibers, and bundles of actin associated with cell adhesion sites.



ARG52468 anti-Vimentin antibody WB image

Western blot: Rat brain, HeLa, SH-SY5Y, HEK293 and NIH/3T3 cell lysates stained with ARG52468 anti-Vimentin antibody (red) at 1:5000 dilution.

The blot was simultaneously stained with [ARG10720](#) anti-MAP2cd antibody [2C4] (green) at 1:5000 dilution, revealing multiple bands around 280 kDa that correspond to full length MAP2a/b isotypes while the ~ 70 kDa bands are MAP2c/d isotypes. MAP2 isotypes are seen only in extracts containing neuronal lineage cells.



ARG52468 anti-Vimentin antibody ICC/IF image

Immunofluorescence: Neuromics hN2 cells (derived from Human embryonic cell line WA09) were fixed and stained with ARG52468 anti-Vimentin antibody (red). Blue staining is nuclear DNA.