Datasheet for ABIN967492

anti-Nestin antibody

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Overview

Quantity:	0.1 mg
Target:	Nestin (NES)
Reactivity:	Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Nestin antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Flow Cytometry (FACS), Fluorescence Microscopy (FM)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Rat (E15) spinal cord extracts
Clone:	Rat 401
Isotype:	IgG1
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 3. Please refer to us for technical protocols.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Nestin (NES)
Alternative Name:	Nestin (NES Products)
Background:	Multipotential stem cells in the neural tube of the developing embryo give rise to the different neuronal cell types of the brain. Nestin is an intermediate filament protein which is abundantly expressed in neuroepithelial stem cells early in embryogenesis, but is absent from nearly all mature central nervous system (CNS) cells. After its down-regulation, GFAP and neurofilaments are expressed in differentiated astrocytes and neurons, respectively. Initial studies showed that the mouse anti-rat nestin antibody (clone Rat 401) recognized transient radial glial cells and dividing neuroepithelial stem cells in the embryonic rat CNS. Reportedly, Rat 401 has been used to analyze nestin expression in the developing rat nervous system and in immortalized CNS precursor cell lines (e.g such as in E11 rat CNS stem cells, but lost by postnatal day 6 (P6) in spinal cord and by P21 in the cerebellum). Although not expressed in normal adult CNS cells, nestin has been reportedly to be detectable in a variety of CNS tumors, suggesting that these tumors share gene expression patterns with primitive, undifferentiated CNS cells. Rat 401 positive cells have been reported to be found throughout the developing neural tube, but not in the adult CNS. More than 90% of dissociated E11 neural tube cells have been reported to be Rat 401 positive. Rat 401 recognizes rat nestin and has been reported not to cross-react with human nestin. Due to differential tissue expression, this antibody may recognize nestin as a doublet within a range of 198-260 kD.
Molecular Weight:	198-260 kDa

Application Details

Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:

Coppola, Dautréaux, Nomaksteinsky, Brunet: "Phox2b expression in the taste centers of fish." in: **The Journal of comparative neurology**, Vol. 520, Issue 16, pp. 3633-49, (2013) (PubMed).

Tseng, Gruzdeva, Li, Chuang, Sung: "Identification of the Tctex-1 regulatory element that directs expression to neural stem/progenitor cells in developing and adult brain." in: **The Journal of comparative neurology**, Vol. 518, Issue 16, pp. 3327-42, (2010) (PubMed).

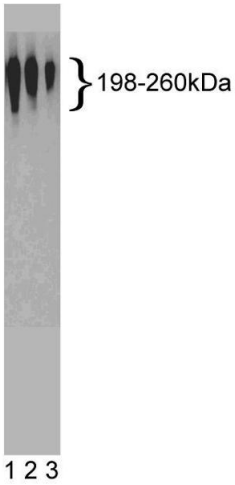
Naritsuka, Sakai, Hashikawa, Mori, Yamaguchi: "Perisomatic-targeting granule cells in the mouse olfactory bulb." in: **The Journal of comparative neurology**, Vol. 515, Issue 4, pp. 409-26, (2009) (PubMed).

Tran, Banisadr, Ren, Chenn, Miller: "Chemokine receptor expression by neural progenitor cells in neurogenic regions of mouse brain." in: **The Journal of comparative neurology**, Vol. 500, Issue 6, pp. 1007-33, (2007) (PubMed).

Pecchi, Dallaporta, Charrier, Pio, Jean, Moyse, Troadec: "Glial fibrillary acidic protein (GFAP)-positive radial-like cells are present in the vicinity of proliferative progenitors in the nucleus tractus solitarius of adult rat." in: **The Journal of comparative neurology**, Vol. 501, Issue 3, pp. 353-68, (2007) (PubMed).

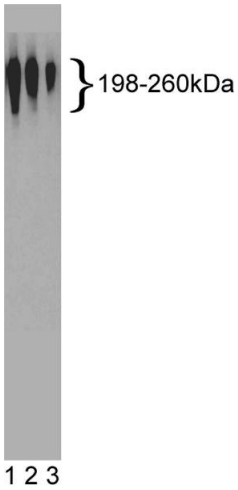
There are more publications referencing this product on: Product page

Image 1.



Western Blotting

Image 2. Western blot analysis of Nestin. A rat (E21) cerebrum lysate was probed with the mouse anti-rat Nestin antibody at concentrations of 2.0 µg/mL (lane 1), 1.0 µg/mL (lane 2), and 0.5 µg/mL (lane 3).



Western Blotting

Image 3.