

Datasheet for ABIN104564

anti-Nestin antibody (AA 1484-1500)**5** Images**5** Publications[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	Nestin (NES)
Binding Specificity:	AA 1484-1500
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Purpose:	Nestin Antibody
Immunogen:	<p>Immunogen: Anti-Nestin affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 1484-1500 of human Nestin protein.</p> <p>Immunogen Type: Conjugated Peptide</p>
Isotype:	IgG
Cross-Reactivity (Details):	This affinity purified antibody is directed against human Nestin protein.
Characteristics:	Synonyms: rabbit anti-Nestin antibody, rabbit anti-NES antibody, Nbla00170
Purification:	The product was affinity purified from monospecific antiserum by immunoaffinity purification.
Sterility:	Sterile filtered

Target Details

Target:	Nestin (NES)
Alternative Name:	NES (NES Products)
Background:	<p>Background: Nestin, is a large intermediate filament protein (class Type VI) that was first identified with a monoclonal antibody by Hockfield and McKay (1985). Nestin is expressed predominantly in stem cells of the central nervous system in the neural tube. Nestin is expressed during development and in myotendinous and neuromuscular junctions. Nestin expression is restricted, typically disappearing by E18. Nestin is thought to be a reasonable neuronal marker, however, recent studies have found nestin expression in other cell types such as endothelial cells. Nestin expression is seen in almost all GBMs (Glioblastoma multiformes) and many melanomas (both primary and metastatic) but not in any metastatic carcinomas. Upon terminal neural differentiation, nestin is downregulated and replaced by neurofilaments.</p>
Gene ID:	10763, 38176300
UniProt:	P48681

Application Details

Application Notes:	<p>Immunohistochemistry Dilution: 5 µg/mL</p> <p>Application Note: Affinity purified Anti-Nestin has been tested for use in ELISA, Immunohistochemistry (IHC), and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 200-220 kDa in size corresponding to Nestin protein by western blotting in the appropriate cell lysate or extract.</p> <p>Western Blot Dilution: 1:500 - 1:3,000</p> <p>ELISA Dilution: 1:20,000 - 1:80,000</p> <p>Other: User Optimized</p>
Restrictions:	For Research Use only

Handling

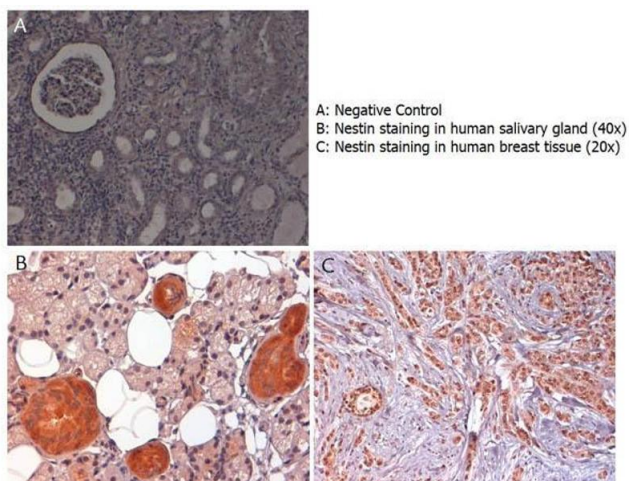
Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	<p>Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2</p> <p>Stabilizer: None</p> <p>Preservative: 0.01 % (w/v) Sodium Azide</p>
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C, -20 °C
Storage Comment:	Store anti-Nestin at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

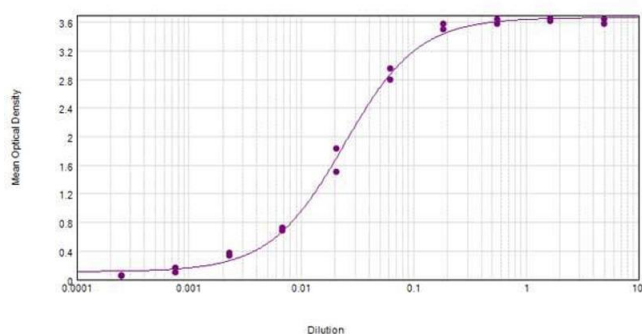
Product cited in:	<p>Mokřý, Cízková, Filip, Ehrmann, Osterreicher, Kolár, English: "Nestin expression by newly formed human blood vessels." in: Stem cells and development, Vol. 13, Issue 6, pp. 658-64, (2005) (PubMed).</p> <p>Aihara, Sugawara, Torii, Hosaka, Kurihara, Saito, Takeuchi: "Angiogenic endothelium-specific nestin expression is enhanced by the first intron of the nestin gene." in: Laboratory investigation; a journal of technical methods and pathology, Vol. 84, Issue 12, pp. 1581-92, (2005) (PubMed).</p> <p>Yaworsky, Kappen: "Heterogeneity of neural progenitor cells revealed by enhancers in the nestin gene." in: Developmental biology, Vol. 205, Issue 2, pp. 309-21, (1999) (PubMed).</p> <p>Dahlstrand, Zimmerman, McKay, Lendahl: "Characterization of the human nestin gene reveals a close evolutionary relationship to neurofilaments." in: Journal of cell science, Vol. 103 (Pt 2), Issue 1, pp. 589-97, (1993) (PubMed).</p> <p>Hockfield, McKay: "Identification of major cell classes in the developing mammalian nervous system." in: The Journal of neuroscience : the official journal of the Society for Neuroscience, Vol. 5, Issue 12, pp. 3310-28, (1986) (PubMed).</p>
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Immunohistochemistry

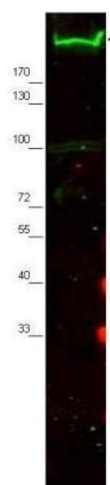
Image 1. Immunohistochemistry with anti-nestin antibody showing nestin staining in cytoplasm of ductal epithelium of human salivary gland (B) and in nucleus and cytoplasm of human breast tissue (C). Formalin fixed/paraffin embedded sections were subjected to heat induced epitope retrieval (HIER) at pH 6.2 and then incubated with rabbit anti-nestin antibody at 4.0 µg/ml for 60 minutes. The reaction was developed using MACH 1 universal HRP polymer detection system and visualized with 3'3-diaminobenzidine substrate (DAB).

Anti-Nestin Sensitivity



ELISA

Image 2. ELISA results of purified Rabbit anti-Nestin Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1 µg of conjugate. The starting dilution of antibody was 5 µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% fish gel, Goat anti-Rabbit IgG Antibody Peroxidase Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins) and TMB ELISA Peroxidase Substrate.



Western Blotting

Image 3. Western blot using Affinity Purified anti-Nestin antibody shows detection of a band ~220 kDa corresponding to mouse Nestin (arrowhead). Approximately 30 µg of MEF whole cell lysate was separated by SDS-PAGE using a 4-20% gradient gel. After transfer onto nitrocellulose, the membrane was blocked and then probed with the primary antibody diluted to 1:2,000 overnight at 4°C. The membrane was then washed and reacted with a 1:10,000 dilution of 800 conjugated Gt-a-Rabbit IgG [H&L] MX for 45 min at room temperature. IRDye800 fluorescence image

was captured using the Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN104564.