

Neurofilament; Clone NR-4

Catalog Number	Format	Volume
A00166-0002	(Ready-To-Use)	2 ml
A00166-0007	(Ready-To-Use)	7 ml
A00166-0025	(Ready-To-Use)	25 ml
A00166-C.1	(Concentrate)	0.1 ml
A00166-C	(Concentrate)	1 ml

Intended Use

For Research Use Only. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy. Any diagnostic interpretation of the results of this antibody is to be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

Description

Titer/Working Dilution: Ready-to-Use: No further dilution required.
Concentrate: Suggested dilution is 1:300-600

Species: Mouse
Immunogen: Crude neurofilament preparation from porcine spinal cord.
Clone: NR-4
Isotype: IgG1, Kappa.
Entrez Gene ID: 4747 (Human)
Hu Chromosome Loc.: 8p21.2
Synonyms: 68kDa neurofilament protein, Light molecular weight neurofilament protein, NEFL, Neurofilament light polypeptide 68kDa, Neurofilament light polypeptide, Neurofilament protein, light chain, Neurofilament subunit NF-L, Neurofilament triplet L protein, NF-L, NF68

Mol. Wt. of Antigen: 68kDa
Format: Ready-To-Use antibody has been pretitered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.

Concentrate antibody is provided at 200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% Sodium Azide.

Specificity: This antibody reacts with a 68kDa protein, identified as light sub-unit of neurofilaments (NF-L). This antibody stains a number of neural, neuroendocrine, and endocrine tumors. Neuromas, ganglioneuromas, gangliogliomas, ganglioneuroblastomas, and neuroblastomas stain positively for anti-neurofilament. Neurofilaments are also present in paragangliomas as well as adrenal and extra-adrenal pheochromocytomas. Carcinoids, neuroendocrine carcinomas of the skin, and oat cell carcinomas of the lung also express neurofilament.

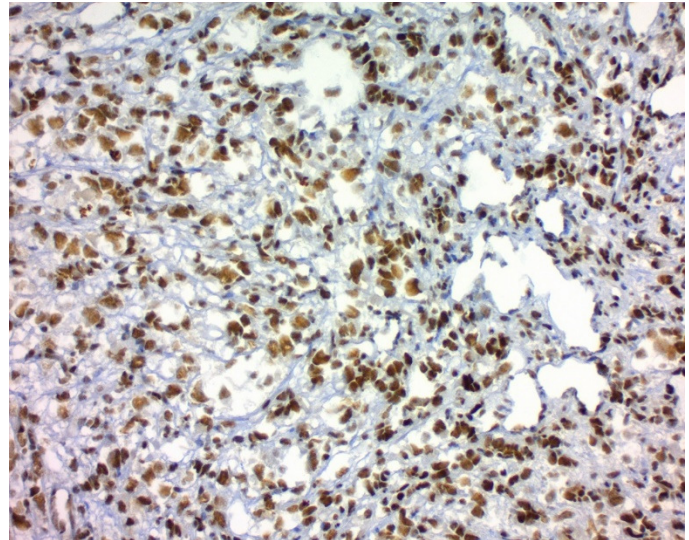
Background: Neurofilaments make up the main structural elements of axons and dendrites and are found in neurons, peripheral nerves, and sympathetic ganglion cells. Neurofilaments consist of three major subunits with molecular weights of 68kDa (NF-L), 160kDa (NF-M) and 200kDa (NF-H).

Species Reactivity: Human, Rat, Pig, Cow, Chicken. Others-not known

Positive Control: HEK293 cells, Brain, Neuroblastoma.

Cellular Localization: Cytoplasmic

Microbiological State: Nonsterile.



Human Brain (cut 5µ thick) stained using Neurofilament; Clone NR-4. Pretreatment with Tris EDTA HEIR Solution (10x) pH 9.0 for 5 minutes, PolyTek Anti-Mouse Polymerized HRP and DAB Chromogen/Substrate (High Contrast). Counterstained with Hematoxylin, Mayer's (Lillie's Modification). Magnification 200X.

Materials and Reagents Required but not Provided

- Control tissue and reagents
- Xylene, graded alcohols, and deionized/distilled water
- Antibody Diluent.
- IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
- Wash buffer for rinses (ScyTek Cat# TBT500)
- HIER Retrieval Solution
- Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)
- Mounting medium and coverslips


Note: ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at scytek.com.


Procedure

- Tissue Section Pretreatment (Required):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with pH 8-9 HIER Solution (see ScyTek catalog# ETA or TES for instructions).
- Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
- Visualization:** For maximum staining intensity we recommend the "CRF Anti-Polyvalent HRP Polymer" (ScyTek catalog# ABZ125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

Storage: 2° C  8° C

 ScyTek Laboratories, Inc.
205 South 600 West
Logan, UT 84321
U.S.A.

CE

EC REP

Emergo Europe
Prinsessegracht 20
2514 AP The Hague, The Netherlands

Limitations

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

Precautions

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at scytek.com

References

1. Angelides, K.J., et al. 1989, J. Cell Biol. 108: 1495-1506
2. Debus E., Weber K., Osborn M. Monoclonal antibodies specific for glial fibrillary acidic (GFA) protein and for each of the neurofilament triplet polypeptides. Differentiation 25 (2): 193-203, (1983).

Warranty

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Storage: 2° C



8° C

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