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Neurofilament (H+L) (Neuronal Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone RT-97 + NR-4]
Catalog # AH12965

Product Information

Application	IHC, FC
Primary Accession	P12036
Other Accession	4744, 198760
Reactivity	Human, Mouse, Rat, Pig, Chicken
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG's
Clone Names	RT-97 + NR-4
Calculated MW	111838

Additional Information

Gene ID	4744
Other Names	Neurofilament heavy polypeptide, NF-H, 200 kDa neurofilament protein, Neurofilament triplet H protein, NEFH, KIAA0845, NFH
Application Note	IHC~~1:100~500 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Neurofilament (H+L) (Neuronal Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NEFH
Synonyms	KIAA0845, NFH
Function	Neurofilaments usually contain three intermediate filament proteins: NEFL, NEFM, and NEFH which are involved in the maintenance of neuronal caliber. NEFH has an important function in mature axons that is not subserved by the two smaller NF proteins. May additionally cooperate with the neuronal intermediate filament proteins PRPH and INA to form neuronal filamentous networks (By similarity).
Cellular Location	Cytoplasm, cytoskeleton. Cell projection, axon {ECO:0000250|UniProtKB:P19246}

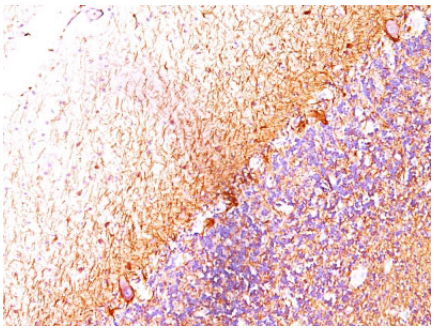
Background

This MAb reacts with a 200kDa and 68kDa protein, identified as heavy and light sub-units of neurofilaments (NF-H & NF-L). 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). Anti-neurofilament 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.

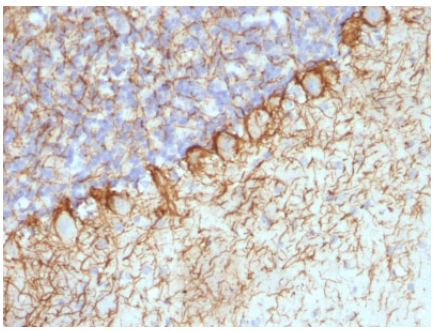
References

Ishii M et. al. Fukushima J Med Sci. 2004;50(2):65-74. | Angelides, K.J., et. al. 1989. J. Cell Biol. 108: 1495-1506. |

Images



Formalin-fixed, paraffin-embedded human Cerebellum stained with Neurofilament Monoclonal Antibody (RT-97 + NR-4).



Formalin-fixed, paraffin-embedded Rat Cerebellum stained with Neurofilament Monoclonal Antibody (RT-97 + NR-4).