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NEFL Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1660a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P07196
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	1H3
Isotype	IgG1
Calculated MW	61517
Description	Neurofilaments are type IV intermediate filament heteropolymers composed of light, medium, and heavy chains. Neurofilaments comprise the axoskeleton and they functionally maintain the neuronal caliber. They may also play a role in intracellular transport to axons and dendrites. This gene encodes the light chain neurofilament protein. Mutations in this gene cause Charcot-Marie-Tooth disease types 1F (CMT1F) and 2E (CMT2E), disorders of the peripheral nervous system that are characterized by distinct neuropathies. A pseudogene has been identified on chromosome Y.
Immunogen	Purified recombinant fragment of human NEFL expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	4747
Other Names	Neurofilament light polypeptide, NF-L, 68 kDa neurofilament protein, Neurofilament triplet L protein, NEFL, NF68, NFL
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NEFL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NEFL
Synonyms	NF68, NFL
Function	Neurofilaments usually contain three intermediate filament proteins: NEFL, NEFM, and NEFH which are involved in the maintenance of neuronal caliber. May additionally cooperate with the neuronal intermediate filament proteins PRPH and INA to form neuronal filamentous networks (By similarity).
Cellular Location	Cell projection, axon {ECO:0000250|UniProtKB:P08551}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P08551}

References

1. BMB Rep. 2008 Dec 31;41(12):868-74. 2. J Hum Genet. 2009 Feb;54(2):94-7.

Images

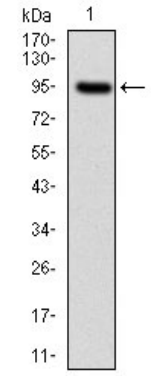

Figure 1: Western blot analysis using NEFL mAb against human NEFL (AA: 422-543) recombinant protein. (Expected MW is 62 kDa)

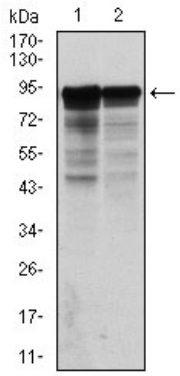

Figure 2: Western blot analysis using NEFL mouse mAb against Hela (1) and Jurkat (2) cell lysate.

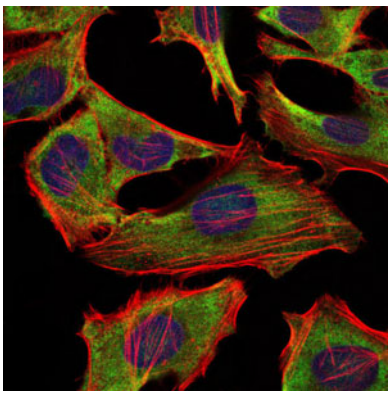

Figure 3: Immunofluorescence analysis of Hela cells using NEFL mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

Figure 3: Immunohistochemical analysis of paraffin-embedded lung cancer tissues using NEFL mouse mAb with DAB staining.

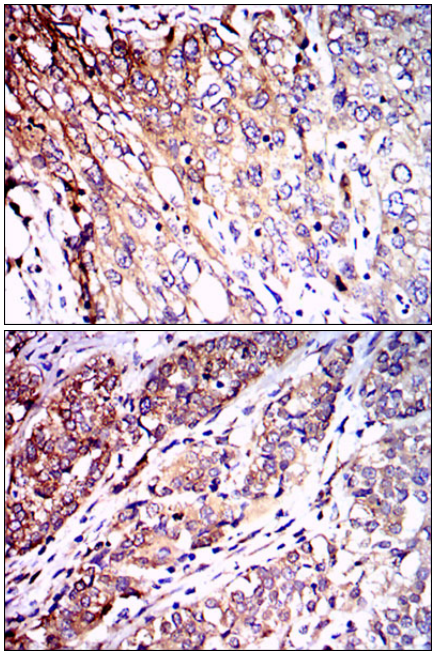

Figure 4: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using NEFL mouse mAb with DAB staining.

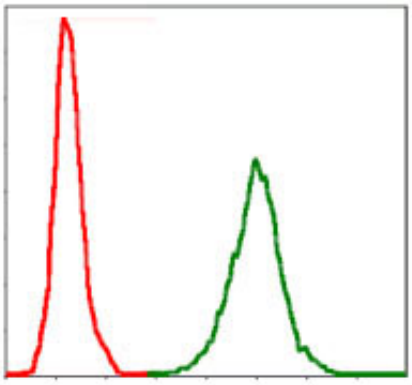

Figure 4: Flow cytometric analysis of Jurkat cells using NEFL mouse mAb (green) and negative control (red).