

### Product datasheet

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# ARG56065 anti-Neurofilament NF-H (Phosphorylated) antibody [NE14]

Package: 50 μg Store at: -20°C

#### **Summary**

Product Description Mouse Monoclonal antibody [NE14] recognizes Neurofilament NF-H (Phosphorylated)

Tested Reactivity Hu, Ms, Rat

Tested Application FACS, IHC-P, WB

Host Mouse

**Clonality** Monoclonal

Clone NE14

Isotype IgG1

Target Name Neurofilament NF-H

Species Pig

Immunogen Crude neurofilament preparation from Pig spinal cord.

Conjugation Un-conjugated

Alternate Names Neurofilament heavy polypeptide; 200 kDa neurofilament protein; NF-H; Neurofilament triplet H

protein; NFH

#### **Application Instructions**

| Application table | Application   | Dilution              |
|-------------------|---|-----------------------|
|                   | FACS  | 0.5 - 1 μg/10^6 cells |
|                   | IHC-P   | 2 - 5 μg/ml           |
|                   | WB  | 1 - 2 μg/ml           |
| Application Note  | IHC-P: Antigen Retrieval: Boil tissue section in 10 mM Citrate buffer (pH 6.0) for 10-20 min, followed by cooling at RT for 20 min.  * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |                       |
| Positive Control  | Human brain   |                       |

#### **Properties**

Form Liquid

Purification Purification with Protein G.

Buffer PBS (pH 7.4), 0.05% Sodium azide and 0.1 mg/ml BSA

Preservative 0.05% Sodium azide

Stabilizer 0.1 mg/ml BSA

Concentration 0.2 mg/ml

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

before use.

Note For laboratory research only, not for drug, diagnostic or other use.

#### Bioinformation

Database links GeneID: 380684 Mouse

GenelD: 4744 Human

Swiss-port # P12036 Human

Swiss-port # P19246 Mouse

Gene Symbol NEFH

Gene Full Name neurofilament, heavy polypeptide

Background Neurofilaments are type IV intermediate filament heteropolymers composed of light, medium, and

heavy chains. Neurofilaments comprise the axoskeleton and functionally maintain neuronal caliber. They may also play a role in intracellular transport to axons and dendrites. This gene encodes the heavy neurofilament protein. This protein is commonly used as a biomarker of neuronal damage and susceptibility to amyotrophic lateral sclerosis (ALS) has been associated with mutations in this gene.

[provided by RefSeq, Oct 2008]

Function Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in

the maintenance of neuronal caliber. NF-H has an important function in mature axons that is not

subserved by the two smaller NF proteins. [UniProt]

Research Area Neuroscience antibody; Signaling Transduction antibody; Neurofilament antibody; Intermediate

Neurofilament antibody

Calculated Mw 112 kDa

PTM There are a number of repeats of the tripeptide K-S-P, NFH is phosphorylated on a number of the

serines in this motif. It is thought that phosphorylation of NFH results in the formation of interfilament

cross bridges that are important in the maintenance of axonal caliber.  $\label{eq:cross} % \begin{center} \end{constraint} \begin{center} \end{center} \begin{center} \en$ 

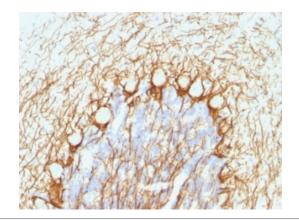
Phosphorylation seems to play a major role in the functioning of the larger neurofilament polypeptides (NF-M and NF-H), the levels of phosphorylation being altered developmentally and coincidentally with a

change in the neurofilament function.

Phosphorylated in the head and rod regions by the PKC kinase PKN1, leading to the inhibition of

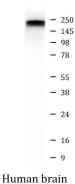
polymerization.

Cellular Localization Cytoplasmic



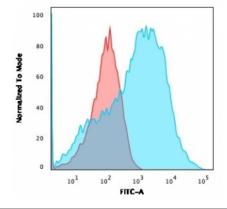
### ARG56065 anti-Neurofilament NF-H (Phosphorylated) antibody [NE14] IHC-P image

Immunohistochemistry: Formalin-fixed, paraffin-embedded Human cerebellum stained with ARG56065 anti-Neurofilament NF-H (Phosphorylated) antibody [NE14].



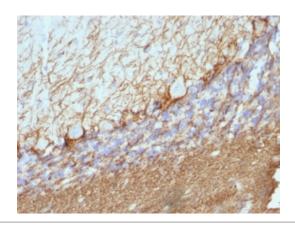
### ARG56065 anti-Neurofilament NF-H (Phosphorylated) antibody [NE14] WB image

Western blot: Human brain lysate stained with ARG56065 anti-Neurofilament NF-H (Phosphorylated) antibody [NE14].



## ARG56065 anti-Neurofilament NF-H (Phosphorylated) antibody [NE14] FACS image

Flow Cytometry: Permeabilized HEK293 cells stained with ARG56065 anti-Neurofilament NF-H (Phosphorylated) antibody [NE14] (blue); Isotype control (red).



### ARG56065 anti-Neurofilament NF-H (Phosphorylated) antibody [NE14] IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Rat cerebellum stained with ARG56065 anti-Neurofilament NF-H (Phosphorylated) antibody [NE14].