

## Datasheet: AHP2259GA

<b>Description:</b>	RABBIT ANTI BOVINE NEUROFILAMENT H 200kDa
<b>Specificity:</b>	NEUROFILAMENT H 200kDa
<b>Other names:</b>	Neurofilament heavy polypeptide
<b>Format:</b>	Purified
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	0.1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (1)	▪			1.0ug/ml
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			0.1ug/ml

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.**

<b>Target Species</b>	Bovine
<b>Species Cross Reactivity</b>	Reacts with: Rat, Human, Mouse <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG - liquid
<b>Antiserum Preparation</b>	Antiserum to bovine NFH was raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG was prepared by affinity chromatography.
<b>Buffer Solution</b>	TRIS-glycine buffered saline, NaCl
<b>Preservative Stabilisers</b>	0.05% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml

**Immunogen** GST-tagged bovine NFH recombinant protein.

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**External Database Links**

**UniProt:**

[P12036](#) [Related reagents](#)  
[P19246](#) [Related reagents](#)  
[P16884](#) [Related reagents](#)

**Entrez Gene:**

[4744](#) NEFH [Related reagents](#)  
[380684](#) Nefh [Related reagents](#)  
[24587](#) Nefh [Related reagents](#)

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**Synonyms**

Kiaa0845, KIAA0845, Nfh, NFH

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**Specificity**

**Rabbit anti Bovine Neurofilament H 200 kDa antibody** recognizes bovine intermediate 200 kDa Neurofilament H (NFH), a 1026 amino acid ~200 kDa protein involved in the maintenance of neuronal integrity.

Neurofilaments are a major component of the cellular cytoskeleton, acting as the most abundant support for the axon cytoplasm. They exist as three neurofilament proteins: 68/70 kDa (NFL) 160 kDa (NFM) and 200 kDa (NFH), which are expressed in both the central and peripheral nervous systems. Although typically expressed by neurons, neurofilaments are also expressed by neuroblastomas, neuromas, gangliogliomas, ganglioneuromas, and ganglioneuroblastomas, as well as paragangliomas, carcinoids, skin neuroendocrine carcinomas, and oat cell carcinomas of the lung ([Lehto et al. 1983](#)).

Defects in NFH are responsible for susceptibility to the neurodegenerative disorder amyotrophic lateral sclerosis (ALS) which affects upper and lower motor neurons, and results in fatal paralysis ([Mendonça et al. 2005](#)).

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**Histology Positive Control Tissue**

Bovine or rat cerebellum

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**Western Blotting**

AHP2259GA detects a band of approximately 200kDa in bovine cerebellum tissue lysates.

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**References**

1. Kaneko, S. *et al.* (2006) Protecting axonal degeneration by increasing nicotinamide adenine dinucleotide levels in experimental autoimmune encephalomyelitis models. [J Neurosci. 26: 9794-804.](#)
2. Li, Y. *et al.* (2008) Transplanted olfactory ensheathing cells incorporated into the optic nerve head ensheath retinal ganglion cell axons: possible relevance to glaucoma. [Neurosci Lett. 440: 251-4.](#)
3. Ignatov, A. *et al.* (2003) Role of the G-protein-coupled receptor GPR12 as high-affinity receptor for sphingosylphosphorylcholine and its expression and function in brain development. [J Neurosci. 23: 907-14.](#)
4. Leyboldt, F. *et al.* (2002) Neuronal differentiation of cultured human NTERA-2cl.D1 cells leads to increased expression of synapsins. [Neurosci Lett. 324 \(1\): 37-40.](#)
5. Savolainen, H. (2009) Cortical demyelination in PML and MS: similarities and differences. [Neurology. 72 \(9\): 861.](#)
6. Zhang, Z. *et al.* (2011) The role of single cell derived vascular resident endothelial progenitor cells in the enhancement of vascularization in scaffold-based skin regeneration. [Biomaterials. 32: 4109-17.](#)

7. Chen, K. *et al.* (2016) Differential Histopathological and Behavioral Outcomes Eight Weeks after Rat Spinal Cord Injury by Contusion, Dislocation, and Distraction Mechanisms. [J Neurotrauma. Apr 4. \[Epub ahead of print\]](#)

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**Further Reading** 1. Liu Q *et al.* (2004) Neurofilament proteins in neurodegenerative diseases. [Cell Mol Life Sci. 61 \(24\): 3057-75.](#)

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**Storage** Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life** 18 months from date of despatch.

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**Health And Safety Information** Material Safety Datasheet documentation available at: Material Safety Datasheet Documentation #10511 available at: <https://www.bio-rad-antibodies.com/uploads/MSDS/10511.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)  
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)  
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)  
Sheep Anti Rabbit IgG (STAR54...) [HRP](#)  
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)  
Sheep Anti Rabbit IgG (STAR36...) [DyLight@488](#), [DyLight@549](#), [DyLight@649](#),  
[DyLight@680](#), [DyLight@800](#)  
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)

### Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)  
[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025C\)](#)  
[TidyBlot™ WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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