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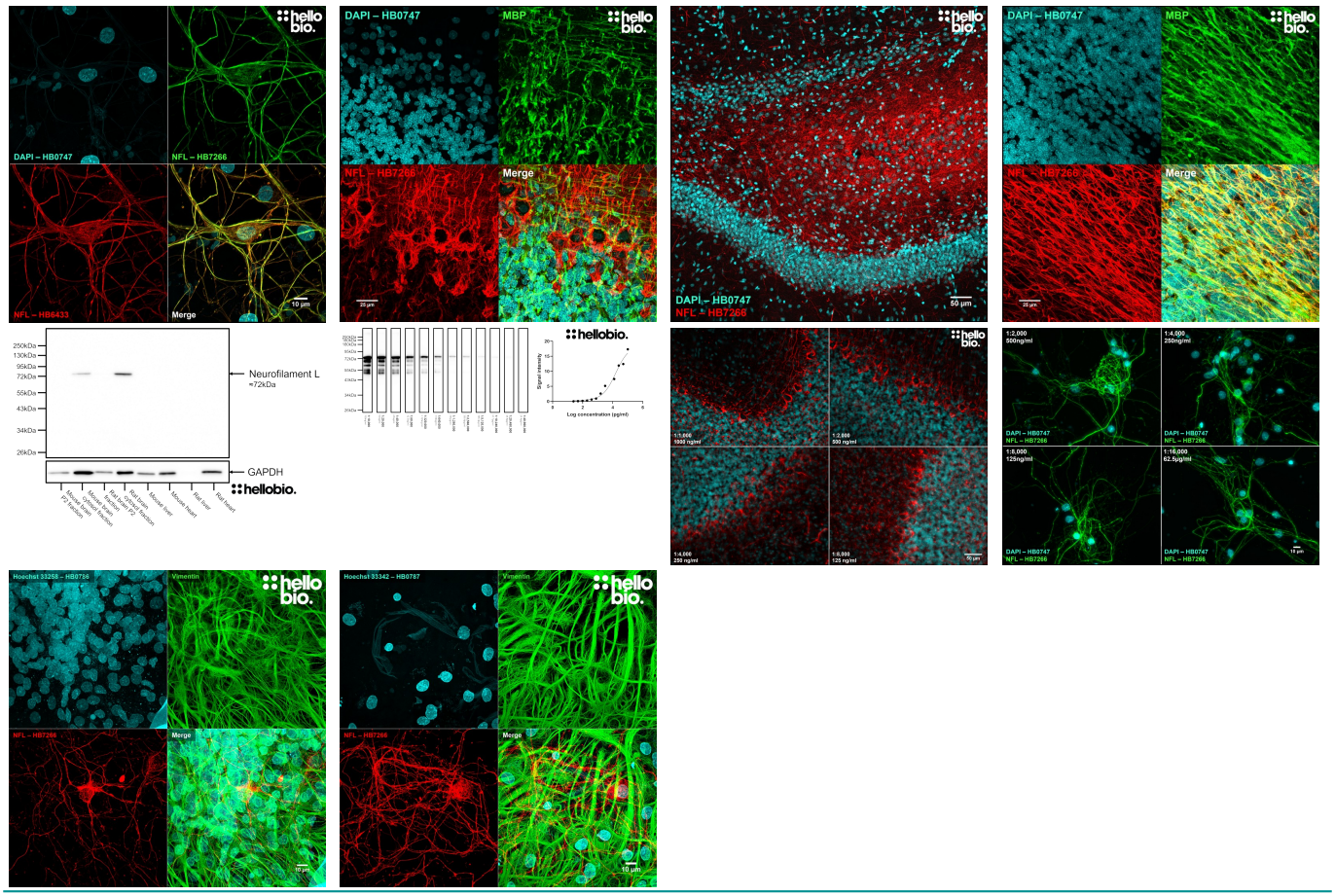
DATASHEET

Recombinant Anti-Neurofilament L (NF-L) antibody ValidAb™

Product overview

Name	Recombinant Anti-Neurofilament L (NF-L) antibody ValidAb™
Cat No	HB7266
Host	Rabbit
Clonality	Monoclonal
Target	Neurofilament L
Description	Recombinant antibody to Neurofilament L - neurofilament component expressed in neurones. Part of the ValidAb™ range of highly validated, data-rich antibodies.

Validation data



Product information

Immunogen	Recombinant human NFL
Clone number	NF36

Immunogen	Recombinant human NFL
Isotype	IgG
Purification	Protein A affinity chromatography
Concentration	1mg/ml
Formulation	Lyophilised. When reconstituted contains PBS with 0.09% sodium azide and 1% recombinant albumin
Predicted species reactivity	Mouse, Rat, Human
Tested species reactivity	Mouse, Rat

Tested applications

Applications	ICC, WB, IHC(IF)
Western blot optimal concentration	1ng/ml (1:1,000,000) as tested in rat brain cytosol fraction
IHC(IF) optimal concentration	0.5µg/ml (1:2,000) as tested in 4% PFA fixed free-floating 40µm rat cerebellum sections.
ICC optimal concentration	0.25µg/ml (1:4,000) as tested in mixed hippocampal/cortical cultured rat neurones
Positive control	Neurofilament L is highly expressed in neural tissue and also found in HEK293 cells.
Negative control	Any tissue not of neural origin and nearly all cell lines.
Open data link	Please follow this link to OSF

Target information

Other names	NF-L, NFL, 68 kDa neurofilament protein, Neurofilament triplet L protein, Neurofilament light polypeptide
UniProt ID	P07196
Gene name	NEFL
NCBI full gene name	neurofilament light chain
Entrez gene ID	4747
Amino acids	543 (61.5kDa)
Isoforms	NFL has no isoforms other than the canonical sequence
Expression	Expressed within neurones only throughout the body
Subcellular expression	Expressed within the cyotoskeleton and axons only
Target function	Neurofilament L (NFL) is a key component, along with Neurofilaments M and H, internexin and peripherin of neurofilaments. NFL forms heterodimers with the other neurofilament components to make up the neurofilaments that stabilise and maintain axonal diameter.
Processing	The leading methionine is removed to leave the mature polypeptide chain.
Post translational modifications	Has 7 phosphorylation sites, 2 glycosylation sites and 3 other modified residues. The high number of phosphorylation sites makes NFL appear to run at a higher molecular weight in SDS-PAGE than it's structure would predict.

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Homology (compared to human)	Has 7 phosphorylation sites, 2 glycosylation sites and 3 other modified residues. The high number of phosphorylation sites makes NFL appear to run at a higher molecular weight in SDS-PAGE than it's structure would predict.
Similar proteins	The most similar proteins, assessed using BLAST, are alpha-internexin (52.2% identity), vimentin (49.9% identity), neurofilament M (44.4% identity) and neurofilament H (44.9% identity).

Storage & Handling

Storage instructions
-20°C then use reconstitution advice

Reconstitution advice
Upon receipt store at either -20°C or -80°C.

For 100µg packs either:

- Reconstitute with 100µl dH_2O and store at 4°C
- Reconstitute with 50µl dH_2O and 50µl glycerol then store at -20°C
- Reconstitute with 100µl dH_2O, aliquot then snap freeze and store at -80°C

For 25µg packs either:

- Reconstitute with 25µl dH_2O and store at 4°C
- Reconstitute with 12.5µl dH_2O and 12.5µl glycerol then store at -20°C
- Reconstitute with 25µl dH_2O, aliquot then snap freeze and store at -80°C

For more information read our guide on the best care for your product. Take care when opening as the precipitate is extremely light and can easily be lost if disturbed. When reconstituting make sure that the antibody is thoroughly dissolved by pipetting up and down before giving the antibody a brief spin at 10,000g to make sure that all material is recovered and at the bottom of the tube.

Shipping Conditions
Stable for ambient temperature shipping. Follow storage instructions on receipt.

Important
This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

References

Serum neurofilament light levels in normal aging and their association with morphologic brain changes

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