**Neurofilament L**

Cat.No. 171 003BT; Polyclonal rabbit antibody, 100 µg purified IgG (lyophilized)

**Data Sheet**

**Reconstitution/Storage**

<table>
<thead>
<tr>
<th></th>
<th>100 µg purified IgG, lyophilized, biotin-labeled. For reconstitution add 100 µl H₂O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.</th>
</tr>
</thead>
</table>

**Applications**

<table>
<thead>
<tr>
<th></th>
<th>WB: 1 : 500 up to 1 : 1000 (AP staining) (see remarks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP</td>
<td>not tested yet</td>
</tr>
<tr>
<td>ICC</td>
<td>1 : 100 (see remarks)</td>
</tr>
<tr>
<td>IHC</td>
<td>1 : 100</td>
</tr>
<tr>
<td>IHC-P/FFPE</td>
<td>1 : 100 up to 1 : 500</td>
</tr>
</tbody>
</table>

**Label**

biotin

**Immunogen**

Recombinant protein corresponding to AA 1 to 376 from human Neurofilament L (UniProt ID: P07196) with AA 200-292 missing. Immunogen corresponds to AA 1 to 284 in AAH66952.1

**Reactivity**

Reacts with: human (P07196), rat (P19527), mouse (P08551). Other species not tested yet.

**Specificity**

Specific for neurofilament L.

**Remarks**

**WB:** This antibody is less sensitive than the crude rabbit antiserum (cat. no. 171 002)  
**ICC:** Methanol fixation is recommended.

**Selected References SYSY Antibodies**

Simultaneous alterations of oligodendrocyte-specific CNP, astrocyte-specific AQP4 and neuronal NF-L demarcate ischemic tissue after experimental stroke in mice.  
Mages B, Aleithe S, Bietz A, Krueger M, Härting W, Michalski D  
Neuroscience letters (2019) : 134405. IHC; tested species: mouse

**Selected General References**

New movements in neurofilament transport, turnover and disease.  
Barry DM, Millecamps S, Julien JP, Garcia ML  

Regulation between O-GlcNAcylation and phosphorylation of neurofilament-M and their dysregulation in Alzheimer disease.  

CSF neurofilament proteins in the differential diagnosis of dementia.  
de Jong D, Jansen RW, Pijnenburg YA, van Geel WJ, Borm GF, Kremer HP, Verbeek MM  

14-3-3 protein binds to the low molecular weight neurofilament (NFL) mRNA 3’ UTR.  
Ge WW, Volkering K, Leystra-Lantz C, Jaffe H, Strong MJ  

Differential subcellular localization of phosphorylated neurofilament and tau proteins in degenerating neurons of the human entorhinal cortex.  
Porchet R, Probst A, Dráberova E, Dráber P, Riederer IM, Riederer BM  

Influence of the axotomy to cell body distance in rat rubrospinal and spinal motoneurons: differential regulation of GAP-43, tubulins, and neurofilament-M.  
Fernandes KJ, Fan DP, Tsui BJ, Cassar SL, Tetzlaff W  

Neurofilament protein is differentially distributed in subpopulations of corticocortical projection neurons in the macaque monkey visual pathways.  
Hof PR, Ungerleider LG, Webster MJ, Gattass R, Adams MM, Salistad CA, Morrison JH  

Differential dynamics of neurofilament-H protein and neurofilament-L protein in neurons.  
Takeda S, Okabe S, Funakoshi T, Hirokawa N  

Neurofilament immunoreactivity in myenteric neurons differs from that found in the central nervous system.  
Eaker EY, Shaw G, Sninsky CA  

Intermediate filaments in nervous tissues.  
Liem RK, Yen SH, Salomon GD, Shelanski ML  

**TO BE USED IN VITRO / FOR RESEARCH ONLY**

**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

**Neurofilaments** are exclusively expressed in nerve cells and are the major structural component of large-diameter myelinated axons. They are predominantly composed of three proteins, Neurofilament H, L and M and are among the most highly phosphorylated neuronal proteins.