Neuroligin 1/2/3/4 extracellular domain

Cat.No. 129 611; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

<table>
<thead>
<tr>
<th>Reconstitution/Storage</th>
<th>100 µg purified IgG, lyophilized. Azide was added before lyophilization. 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           | **WB**: 1 : 1000 up to 1 : 2000 AP staining (see remarks)  
                          **IP**: yes  
                          **ICC**: not tested yet  
                          **IHC**: not tested yet  
                          **IHC-P/FFPE**: not tested yet |
| Clone                  | 91D9 |
| Subtype                | IgG1 (κ light chain) |
| Immunogen              | Recombinant protein corresponding to AA 42 to 639 from rat Neuroligin1 (UniProt Id: Q62765) |
| Epitop                 | Epitop: AA 42 to 639 from rat Neuroligin1 (UniProt Id: Q62765) |
| Reactivity             | Reacts with: mouse (Q99K10, Q692K9, Q88YMS, B0F2B4), rat (Q62765, Q62888, Q62889), Other species not tested yet |
| Specificity            | Recognizes rat and mouse neuroligins 1-3 and mouse neuroligin 4. (K.O. verified) |
| Remarks                | **WB**: Shows higher sensitivity compared to 129 011. |

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

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

Neuroligins form a family of postsynaptic cell surface molecules that interact with β-neurexins. They are 110-120 kDa polypeptides with homology to acetylcholine esterase. Neuroligin 1 and neuroligin 3 are specifically localized to post-synaptic densities of excitatory synapses whereas neuroligin 2 is found exclusively on inhibitory synapses. Mutations in neuroligin 3 and neuroligin 4 have been implicated with a rare, heritable form of autism.

**Selected General References**

Neuroligin 1 is a postsynaptic cell-adhesion molecule of excitatory synapses.

Song JY, Ichtchenko K, Südhof TC, Brose N  

Activity-dependent validation of excitatory versus inhibitory synapses by neuroligin-1 versus neuroligin-2.

Chubykin AA, Atasoy D, Etherton MR, Brose N, Kavalali ET, Gibson JR, Südhof TC  


Neuroligin 2 is exclusively localized to inhibitory synapses.

Varoqueaux F, Jamain S, Brose N  

Synaptic targeting of neuroligin is independent of neurexin and SAP90/PSD95 binding.

Dresbach T, Neeb A, Meyer G, Gundelfinger ED, Brose N  

The making of neurexins.

Missler M, Fernandez-Chacon R, Südhof TC  

Structures, alternative splicing, and neurexin binding of multiple neuroligins.

Ichtchenko K, Nguyen T, Südhof TC  

Neuroligin 1: a splice site-specific ligand for beta-neurexins.

Ichtchenko K, Hata Y, Nguyen T, Ullrich B, Missler M, Moomaw C, Südhof TC  

The synaptic vesicle cycle: a cascade of protein-protein interactions.

Südhof TC  