SYSY Antibodies

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Neuroligin1 KO lysate

Cat.No. 510-Nlg1-KO; , 100 µg tissue lysate

Data Sheet

Reconstitution/ Storage	100 µg lysate in 1 X SDS PAGE loading buffer 'ready to use'. Total volume: 50 µl. Concentration: 2 mg/ml. Aliquot and store at -20°C until use. For detailed information, see back of the data sheet.
Applications	**WB**: yes (see remarks)
Loading/lane	10-30 µg
Source	Mouse, Balb-C
Remarks	**WB**: Since some proteins aggregate after boiling, these lysates are unboiled. Boil sample before loading, if this is recommended for your protocol.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Background

These total brain lysates from wild type and Neuroligin 1-4 KO strains can be used to investigate antibody specificity in western blot experiments. Protein concentration has been determined with a Bradford protein quantification assay.

Selected General References

Activity-dependent validation of excitatory versus inhibitory synapses by neuroligin-1 versus neuroligin-2.
Chubykin AA et al. Neuron (2007) PubMed:17582332

Dissection of synapse induction by neuroligins: effect of a neuroligin mutation associated with autism.
Chubykin AA et al. J. Biol. Chem. (2005) PubMed:15797875

Neuroligin 2 is exclusively localized to inhibitory synapses.
Varoqueaux F et al. Eur. J. Cell Biol. (2004) PubMed:15540461

Synaptic targeting of neuroligin is independent of neurexin and SAP90/PSD95 binding.
Dresbach T et al. Mol. Cell. Neurosci. (2004) PubMed:15519238

Neuroligin 1 is a postsynaptic cell-adhesion molecule of excitatory synapses.
Song JY et al. Proc. Natl. Acad. Sci. U.S.A. (1999) PubMed:9927700

The making of neurexins.
Missler M et al. J. Neurochem. (1998) PubMed:9751164

Structures, alternative splicing, and neurexin binding of multiple neuroligins.
Ichtchenko K et al. J. Biol. Chem. (1996) PubMed:8576240

Neuroligin 1: a splice site-specific ligand for beta-neurexins.
Ichtchenko K et al. Cell (1995) PubMed:7736595

The synaptic vesicle cycle: a cascade of protein-protein interactions.
Südhof TC et al. Nature (1995) PubMed:7791897

Access the online factsheet including applicable protocols at https://sysy.com/product/510-Nlg1-KO or scan the QR-code.

FAQ - How should I store my antibody?

Shipping Conditions

- All our antibodies and control proteins / peptides are shipped lyophilized (vacuum freeze-dried) and are stable in this form without loss of quality at ambient temperatures for several weeks.

Storage of Sealed Vials after Delivery

- **Unlabeled** and **biotin-labeled antibodies** and **control proteins** should be stored at 4°C before reconstitution. **They must not be stored in the freezer when still lyophilized!** Temperatures below zero may cause loss of performance.
- **Fluorescence-labeled antibodies** should be reconstituted immediately upon receipt. Long term storage (several months) may lead to aggregation.
- **Control peptides** should be kept at -20°C before reconstitution.

Long Term Storage after Reconstitution (General Considerations)

- The storage freezer must not be of the frost-free variety ("no-frost freezer"). This cycle between freezing and thawing (to reduce frost-build-up), which is exactly what should be avoided. For the same reason, antibody vials should be placed in an area of the freezer that has minimal temperature fluctuations, for instance towards the back rather than on a door shelf.
- Aliquot the antibody and store frozen (-20°C to -80°C). Avoid very small aliquots (below 20 µl) and use the smallest storage vial or tube possible. The smaller the aliquot, the more the stock concentration is affected by evaporation and adsorption of the antibody to the surface of the storage vial or tube. Adsorption of the antibody to the surface leads to a substantial loss of activity.
- The addition of glycerol to a final concentration of 50% lowers the freezing point of your stock and keeps your antibody at -20°C in liquid state. This efficiently avoids freeze and thaw cycles.

Product Specific Hints for Storage

Control proteins / peptides

- Store at -20°C to -80°C.

Monoclonal Antibodies

- **Ascites** and **hybridoma supernatant** should be stored at -20°C up to -80°C. **Prolonged storage at 4°C is not recommended!** Unlike serum, ascites may contain proteases that will degrade the antibodies.
- **Purified IgG** should be stored at -20°C up to -80°C. Adding a carrier protein like BSA will increase long term stability. Many of our antibodies already contain carrier proteins. Please refer to the data-sheet for detailed information.

Polyclonal Antibodies

- **Crude antisera**: With anti-microbials added, they may be stored at 4°C. However, frozen storage (-20°C up to -80°C) is preferable.
- **Affinity purified antibodies**: Less robust than antisera. Storage at -20°C up to -80°C is recommended. Adding a carrier protein like BSA will increase long term stability. Most of our antibodies already contain carrier proteins. Please refer to the data-sheet for detailed information.

Fluorescence-labeled Antibodies

- Store as a liquid with 1 : 1 (v/v) glycerol at -20°C. Protect these antibodies from light exposure.

Avoid repeated freeze-thaw cycles for all antibodies!

FAQ - How should I reconstitute my antibody?

Reconstitution

- All our purified antibodies are lyophilized from PBS. To reconstitute the antibody in PBS, add the amount of deionized water given in the respective datasheet. If higher volumes are preferred, add water as mentioned above and then the desired amount of PBS and a stabilizing carrier protein (e.g. BSA) to a final concentration of 2%. Some of our antibodies already contain albumin. Take this into account when adding more carrier protein.
  For complete reconstitution, carefully remove the lid. After adding water, briefly vortex the solution. You can spin down the liquid by placing the vial into a 50 ml centrifugation tube filled with paper.
- If desired, add small amounts of azide or thimerosal to prevent microbial growth. This is especially recommended if you want to keep an aliquot a 4°C.
- After reconstitution of fluorescence-labeled antibodies, add 1 : 1 (v/v) glycerol to a final concentration of 50%. This lowers the freezing point of your stock and keeps your antibody in liquid state at -20°C.
- Glycerol may also be added to unlabeled primary antibodies. It is a suitable way to avoid freeze-thaw cycles.
- Please refer to our **tips and hints for subsequent storage** of reconstituted antibodies and control peptides and proteins.