SYSY
Antibodies

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Membrane Protein Extraction Kit

MemEx

Cat.No. 800-MXK; , 1 kit

Data Sheet

Reconstitution/ Storage	**Content** 800-MXK A: SySy MemEx reagent A, 10 ml 800-MXK B: SySy MemEx reagent B, 30 ml 800-MXK C: SySy MemEx reagent C, 10 ml 800-MXK D: SySy MemEx dye, 300 µl. Reagents are sufficient for 130 extractions of up to 300 µg protein. For detailed information, see back of the data sheet.
Storage	Product is shipped at ambient temperature. Store at 4°C upon receipt. Reagent A appears cloudy at RT. Storage at 4°C will clarify the solution. Keep reagent A at 4°C or on ice at all times during usage of the kit. Reagent C precipitates at 4°C and should be dissolved by warming before use.
Gallery Membrane protein fractionation from rat brain	blot Quantification
Gallery Membrane protein fractionation from 3T3 cells	blot Quantification
Shelf life	6 months

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

Background

SySy MemEx employs a detergent-based temperature-dependent phase separation to enrich membrane proteins from mammalian tissue or cell homogenates. By this simple and rapid procedure you obtain a rather pure, non-denatured membrane protein fraction from any chosen protein homogenate. Most membrane proteins partition to the detergent phase with 80-90% efficiency, while the soluble proteins generally remain in the aqueous phase.
Depending on the starting material, the membrane proteins in the detergent phase will constitute 15-25% of input protein, thus being separated from many contaminating soluble proteins and other water-soluble compounds. Proteins with a very low expression level like Cellubrevin may become accessible to analysis only after enrichment. Abundant proteins like Tubulin or Synaptotagmin 1 can be found in both phases and may need a second round of extraction for complete purification. However, each protein shows individual behaviour depending on hydrophobicity and interactions with other (hydrophobic) proteins.
The membrane proteins isolated by SySy MemEx Kit are suitable for downstream applications like activity assays, immunoprecipitation, proteomic analysis or SDS-PAGE/western blotting. If the detergent should interfere with analysis, it can be removed by protein precipitation (denaturing) or dialysis against 0.5 % CHAPS in a suitable buffer (native; CHAPS can later be exchanged with other detergents).

[[800-MXK-schema.jpg]]

Access the online factsheet including applicable protocols at https://sysy.com/product/800-MXK 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.