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# Exportin4

Cat.No. 215 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

### **Data Sheet**

Storage  reconstitu store at -20 Antibodies For detaile  Applications  WB: 1: 100 IP: not test ICC: not reconstitution in the store in	ified IgG, lyophilized. Azide was added before lyophilization. For <b>tion</b> add 100 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and °C to -80°C until use.
IP: not test ICC: not red IHC: not re	should be stored at +4°C when still lyophilized. Do not freeze! d information, see back of the data sheet.
IHC-P: not	00 (ECL detection) ced yet commended commended recommended
Clone 183B1	
Subtype IgG2a (κ lig	ht chain)
Immunogen Recombina (UniProt Id	int protein corresponding to AA 927 to 1151 from human Exportin4 : Q9C0E2)
_	n: human (Q9C0E2), rat, mouse (Q9ESJ0), monkey, ape. ies not tested yet.
Specificity K.O. valida	ted

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

# **Background**

**Exportin 4**, also referred to as **exp4** and **XPO4**, is a member of the importin β family comprising importins and exportins. These receptor proteins shuttle between the nucleus and the cytoplasm, interact with nuclear pore complexes and bind cargo molecules. Exportin 4 is highly conserved in higher euykaryotes and has been shown to mediate the nuclear export of eIF-5A (eukaryotic translation initiation factor 5A) and Smad 3.

In a recent screen for tumor suppressors an exportin 4 knock-down led to increased tumorigenesis. In addition re-expression of this protein in the exportin 4 deficient cell-line SK-Hep1 efficiently suppressed proliferation.

#### **Selected General References**

An oncogenomics-based in vivo RNAi screen identifies tumor suppressors in liver cancer. Zender L et al. Cell (2008) PubMed:19012953

The mechanism of nuclear export of Smad3 involves exportin 4 and Ran. Kurisaki A et al. Mol. Cell. Biol. (2006) PubMed:16449645

Exportin 4: a mediator of a novel nuclear export pathway in higher eukaryotes. Lipowsky G et al. EMBO J. (2000) PubMed:10944119

Access the online factsheet including applicable protocols at <a href="https://sysy.com/product/215011">https://sysy.com/product/215011</a> 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 freezedried) 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 freezethaw cycles.
- Please refer to our tips and hints for subsequent storage of reconstituted antibodies and control peptides and proteins.