abcam

ab12370

# Anti-Syntaxin 6 antibody [3D10] - Golgi Membrane Marker

Lab Essentials

## Key facts

| | |
|---|---|
| **Isotype** | IgG1 |
| **Host species** | Mouse |
| **Storage buffer** | Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine) |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Recombinant Full Length Protein corresponding to Rat Syntaxin-6. Database link Q63635 |
| **Clone number** | 3D10 |
| **Purification technique** | Affinity purification Protein G |
| **Epitope** | The epitope for this antibody has been localized to the amino terminus (residues 1-25) of Syntaxin 6. |
| **Light chain type** | kappa |
| **Concentration** | 1 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |
| **Purification notes** | Purified from TCS |

## Reactivity data

## IP

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | - |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Flow Cyt

### Tested

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | 2 µg for $10^6$ Cells |
| **Notes** | ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody. |

### Expected

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/1000 |
| **Notes** | - |

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | 1/1000 |

| | |
|---|---|
| **Notes** | - |

## Target data

See full target information Stx6

| | |
|---|---|
| **Function** | SNARE promoting movement of transport vesicles to target membranes. Targets endosomes to the trans-Golgi network, and may therefore function in retrograde trafficking. Together with SNARE STX12, promotes movement of vesicles from endosomes to the cell membrane, and may therefore function in the endocytic recycling pathway. |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle |

## Notes

This product was changed from ascites to tissue culture supernatant on 5th July 2019. Lot numbers higher than GR3173630 are from tissue culture supernatant. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | Syntaxin 6 also known as STX6 functions as a SNARE protein involved in vesicle fusion processes. It has a molecular weight of about 31 kDa. You find it mainly in the trans-Golgi network and within endosomal compartments. Syntaxin 6 varies in expression across different tissues but exhibits strong presence in the brain and lung. This protein plays an important role in intracellular trafficking by mediating fusion of transport vesicles with their correct target membranes. |
| **Biological function summary** | Syntaxin 6 contributes to intracellular material transport and acts as a component of the SNARE complex which includes other proteins like Vti1a and VAMP4. These |

| | |
|---|---|
| | SNARE complexes facilitate vesicle docking and fusion important for cargo delivery. In particular Syntaxin 6 aids in routing proteins and lipids from the Golgi apparatus to their destinations supporting normal cellular function and maintenance of cellular organelles. |
| **Pathways** | Syntaxin 6 involves itself in endocytosis and the secretory pathway. It interacts with proteins such as syntaxin 16 and Vti1b coordinating vesicular traffic from the Golgi to endosomes and lysosomes. Proper function of these pathways maintains cellular homeostasis and impacts processes like hormone secretion and receptor recycling making Syntaxin 6 integral for efficient cellular communication and transport. |
| **Associated diseases and disorders** | Dysregulation of Syntaxin 6 links to neurodevelopmental disorders and cancer progression. Abnormal Syntaxin 6 expression can affect neurotransmitter release highlighting its relationship with proteins like VAMP2 in neurological disorders. Further alterations in its function impact cellular proliferation contributing to oncogenic processes through interactions with proteins such as SNAP23. Understanding its role in these contexts emphasizes the need for further research to explore therapeutic implications. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

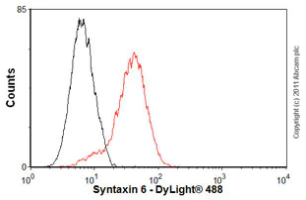
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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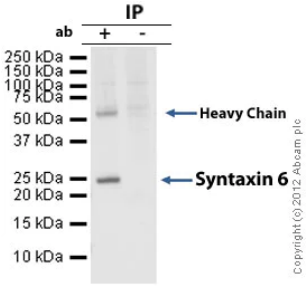
## 4 product images




## Flow Cytometry - Anti-Syntaxin 6 antibody [3D10] - Golgi Membrane Marker (ab12370)

Syntaxin 6 Flow Cytometry staining using mouse Anti-Syntaxin 6 antibody

Overlay histogram showing PC12 cells stained with ab12370 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab12370, 2µg/1x$10^6$ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x$10^6$ cells) used under the same conditions. Acquisition of >5,000 events was performed.
This image was generated using the ascites version of the product.

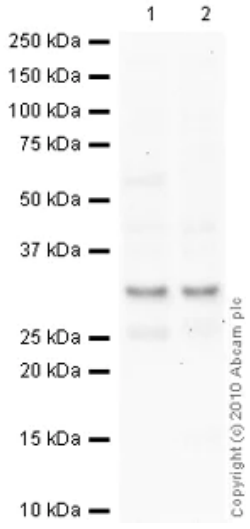



## Immunoprecipitation - Anti-Syntaxin 6 antibody [3D10] - Golgi Membrane Marker (ab12370)

Syntaxin 6 was immunoprecipitated using 0.5mg Mouse Brain whole tissue lysate, 10µg of Mouse monoclonal to Syntaxin 6 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).
The antibody was incubated under agitation with Protein G beads for 10min, Mouse Brain whole tissue lysate lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab12370.
Secondary: Protein G-HRP at 1/500 dilution.
Band: 25kDa:Syntaxin 6.
This image was generated using the ascites version of the product.

All lanes:
Immunoprecipitation - Anti-Syntaxin 6 antibody [3D10] - Golgi Membrane Marker (ab12370)

Predicted band size: 29 kDa




## Western blot - Anti-Syntaxin 6 antibody [3D10] - Golgi Membrane Marker (ab12370)

Syntaxin 6 Western blot staining using mouse Anti-Syntaxin 6 antibody

This image was generated using the ascites version of the product.
All lanes:
Western blot - Anti-Syntaxin 6 antibody [3D10] - Golgi Membrane Marker (ab12370) at 1 µg/mL

Lane 1:
Brain (Mouse) Tissue Lysate at 10 µg

Lane 2:
Brain (Rat) Tissue Lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Mouse IgG H&L (HRP) preadsorbed (ab97040) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 29 kDa

Observed band size: 26 kDa, 30.6 kDa

Exposure time: 8min

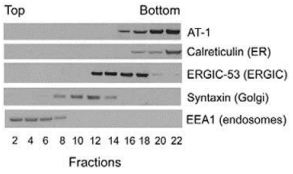



Image from Jonas MC et al, J Cell Sci. 2010 Oct 1;123(Pt 19):3378-88. Epub 2010 Sep 7, Fig 1, doi:10.1242/jcs.068841.

## Western blot - Anti-Syntaxin 6 antibody [3D10] - Golgi Membrane Marker (ab12370)

Intracellular membranes from CHO cells were separated on a 10–24% discontinuous Nycodenz gradient. Western Blotting was then performed using a range of antibodies including ab12370 at a 1/1000 dilution. An HRP-conjugated anti-mouse secondary was used at a 1/6000 dilution.
This image was generated using the ascites version of the product.

All lanes:
Western blot - Anti-Syntaxin 6 antibody [3D10] - Golgi Membrane Marker (ab12370)

Predicted band size: 29 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.