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Anti-SNAP23 Antibody

Catalog Number: PA1774

About SNAP23

SNAP23 (Synaptosomal-Associated Protein, 23-KD), also called SNAP23A, is a protein that in humans is encoded by the SNAP23 gene. The SNAP23 gene has 8 exons, with the initiation codon located in exon 2. The SNAP23 gene is mapped on 15q15.1-q15.2. The SNAP23 cDNA encodes a 211-amino acid polypeptide with a predicted mass of 23 kD. Its amino acid sequence is 59% identical to that of SNAP25. Northern blot analysis revealed that SNAP23 is ubiquitously expressed. SNAP23 is able to bind to multiple syntaxins as well as to multiple vesicle-associated membrane proteins. After relocation, SNAP23 is required for exocytosis, implying a crucial role in promoting membrane fusion. TIVAMP-containing vesicles were concentrated in the apical domain of epithelial cells. STX3A and SNAP23 were codistributed at the apical plasma membrane, where they formed N-ethyl maleimide-dependent SNARE complexes with TIVAMP and cellubrevin. SNAP23 is structurally and functionally similar to SNAP25 and binds tightly to multiple syntaxins and synaptobrevins/VAMPs. It is an essential component of the high affinity receptor for the general membrane fusion machinery and is an important regulator of transport vesicle docking and fusion.

Overview

Product Name	Anti-SNAP23 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-SNAP23 Antibody catalog # PA1774. Tested in Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O00161

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human SNAP23, different from the related rat and mouse sequences by three amino acids.
Predicted Reactive Species	Canine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins

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Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat, Mouse, By Heat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human, Mouse, Rat Immunocytochemistry , 0.5-1ug/ml, Human, - Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human

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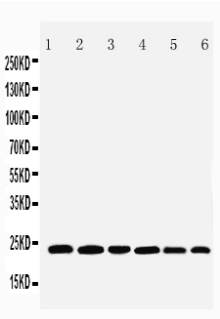
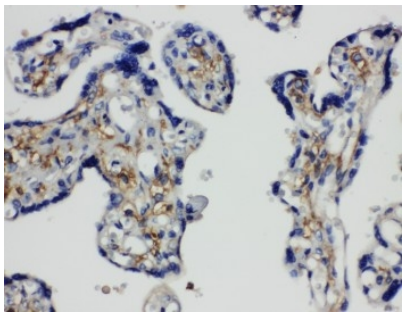
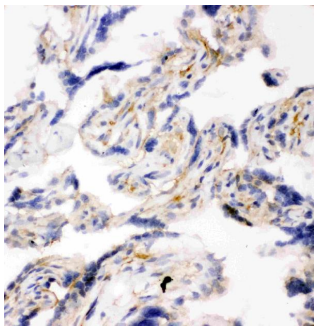
Anti-SNAP23 Antibody (PA1774) Images



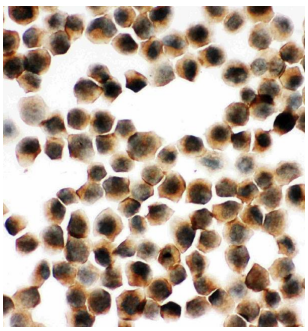
Anti-SNAP23 antibody, PA1774, Western blotting
Lane 1: Rat Spleen Tissue Lysate
Lane 2: Rat testis Tissue Lysate
Lane 3: Rat Ovary Tissue Lysate
Lane 4: HELA Cell Lysate
Lane 5: MCF-7 Cell Lysate
Lane 6: SKOV Cell Lysate



Anti-SNAP23 antibody, PA1774, IHC(P)
IHC(P): Human Placenta Tissue



Anti-SNAP23 antibody, PA1774, IHC(F)
IHC(F): Human Placenta Tissue



Anti-SNAP23 antibody, PA1774,ICC
ICC: K562 Cell

Figure 5. IF analysis of SNAP23 using anti-SNAP23 antibody (PA1774).
SNAP23 was detected in immunocytochemical section of T47D cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-SNAP23 Antibody (PA1774) overnight at 4°C. DyLight®488 Conjugated Goat

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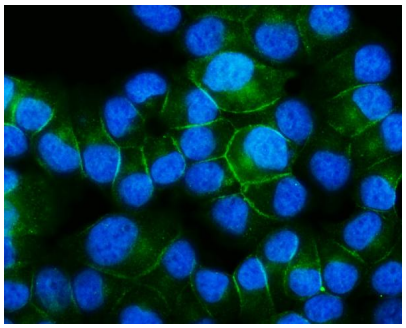

Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

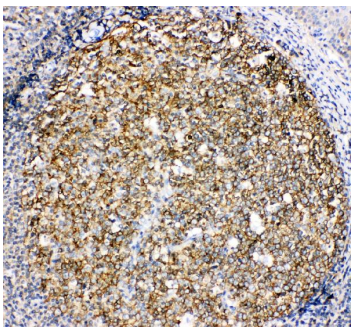

Figure 6. IHC analysis of SNAP23 using anti-SNAP23 antibody (PA1774).
SNAP23 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-SNAP23 Antibody (PA1774) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

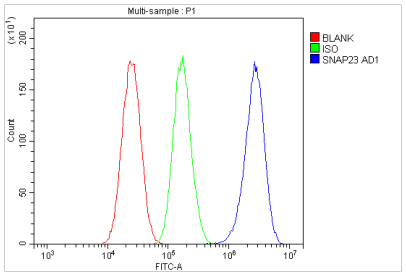

Figure 7. Flow Cytometry analysis of HEPG2 cells using anti-SNAP23 antibody (PA1774).
Overlay histogram showing HEPG2 cells stained with PA1774 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SNAP23 Antibody (PA1774, 1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

1 Publications Citing This Product

1. PubMed ID: -, Wang,Y.,Pang,J.,Wang,Q.,Yan,L.,Wang,L.,Xing,Z.,Wang,C.,Zhang,J., Dong,L.,Delivering Antisense Oligonucleotides across the Blood□Brain Barrier by Tumor Cell□Derived Small Apoptotic Bodies.Adv.Sci.2021,2004929.https://doi.org/10.1002/advs.202004929

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