

Anti-SNAP23 Antibody Picoband™

Catalog Number: A02487

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 Picoband™
Reactive Species	Human
Description	Boster Bio Anti-SNAP23 Antibody Picoband™ catalog # A02487. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	O00161

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SNAP23, which shares 94.4% amino acid (aa) sequence identity with mouse and rat SNAP23.
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).
Cross Reactivity	No cross-reactivity with other proteins.
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, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Flow Cytometry, 1-3 ug/1x10⁶ cells, Human

Anti-SNAP23 Antibody Picoband™ (A02487) Images

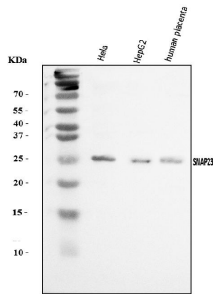


Figure 1. Western blot analysis of SNAP23 using anti-SNAP23 antibody (A02487).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,

Lane 2: human HepG2 whole cell lysates,

Lane 3: human placenta tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SNAP23 antigen affinity purified polyclonal antibody (Catalog # A02487) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for SNAP23 at approximately 23 kDa. The expected band size for SNAP23 is at 23 kDa.

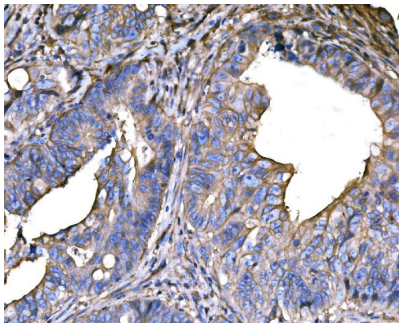


Figure 2. IHC analysis of SNAP23 using anti-SNAP23 antibody (A02487).

SNAP23 was detected in a paraffin-embedded section of differentiated adenocarcinoma of the human rectum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SNAP23 Antibody (A02487) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

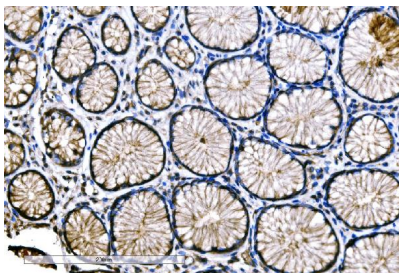
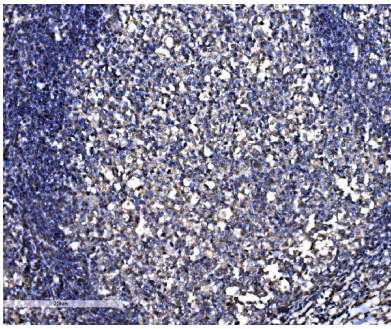


Figure 3. IHC analysis of SNAP23 using anti-SNAP23 antibody (A02487).

SNAP23 was detected in a paraffin-embedded section of human gastric signet ring cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SNAP23 Antibody (A02487) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 4. IHC analysis of SNAP23 using anti-SNAP23 antibody



(A02487). SNAP23 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SNAP23 Antibody (A02487) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

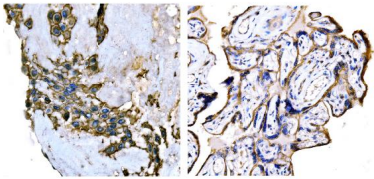


Figure 5. IHC analysis of SNAP23 using anti-SNAP23 antibody (A02487). SNAP23 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SNAP23 Antibody (A02487) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

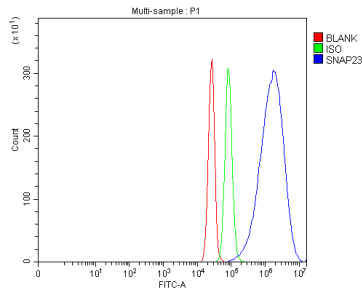


Figure 6. Flow Cytometry analysis of SiHa cells using anti-SNAP23 antibody (A02487). Overlay histogram showing SiHa cells stained with A02487 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SNAP23 Antibody (A02487, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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