

# SNAP47 (E-12): sc-138623

## BACKGROUND

In eukaryotic cells, the Golgi apparatus receives newly synthesized proteins from the endoplasmic reticulum and delivers them after covalent modification to their destination in the cell. For membrane-directed proteins, this process is believed to be carried out via vesicular transport. Correct vesicular transport is determined by specific pairing of vesicle-associated SNAREs (v-SNAREs) with those on the target membrane (t-SNAREs). This complex then recruits soluble NSF attachment proteins (SNAPs) and N-ethylmaleimide-sensitive factor (NSF) to form the highly stable SNAP receptor (SNARE) complex. The formation of a SNARE complex pulls the vesicle and target membrane together and may provide the energy to drive fusion of the lipid bilayers. SNAP47 (synaptosomal-associated protein 47), also known as epididymis luminal protein 170, is a 464 amino acid protein that is ubiquitously expressed with highest levels found in nervous tissue. There are four isoforms of SNAP47 that are produced as a result of alternative splicing events.

## REFERENCES

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- Stein, A., et al. 2009. Helical extension of the neuronal SNARE complex into the membrane. *Nature* 460: 525-528.
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## CHROMOSOMAL LOCATION

Genetic locus: SNAP47 (human) mapping to 1q42.13; Snap47 (mouse) mapping to 11 B1.3.

## SOURCE

SNAP47 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SNAP47 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138623 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SNAP47 (E-12) is recommended for detection of SNAP47 of human origin and 1110031B06Rik of mouse origin; SNAP47 isoforms 1-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other SNAP family members.

SNAP47 (E-12) is also recommended for detection of SNAP47 and SNAP47 isoforms 1-4 in additional species, including equine.

Suitable for use as control antibody for SNAP47 siRNA (h): sc-88350, SNAP47 siRNA (m): sc-153647, SNAP47 shRNA Plasmid (h): sc-88350-SH, SNAP47 shRNA Plasmid (m): sc-153647-SH, SNAP47 shRNA (h) Lentiviral Particles: sc-88350-V and SNAP47 shRNA (m) Lentiviral Particles: sc-153647-V.

Molecular Weight of SNAP47 isoforms 1/2/3/4: 53/50/23/25 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **SNAP47 (D-11): sc-514428**, our highly recommended monoclonal alternative to SNAP47 (E-12).