

# Amisyn (E-17): sc-67607

## BACKGROUND

Amisyn, also known as Syntaxin-binding protein 6 (STXBP6), is a mostly cytosolic protein, related to Tomosyn, which plays an important role in SNARE complex assembly. Amisyn contains a v-SNARE coiled-coil homology domain that binds to Syntaxin 1A and weakly to Syntaxin 4. Three isoforms exist for Amisyn. Isoform 1 is the full length protein; isoform 2 has a different amino acid sequence between residues 204-210; and isoform 3 is missing amino acids 1-102 and contains a different sequence for amino acids 103-150. Amisyn lacks a transmembrane domain and therefore is unable to assemble into a functional, membrane-anchored SNARE complex. This suggests that Amisyn may instead be acting to maintain SNARE conformation and facilitate the binding of VAMP-2. Amisyn can inhibit exocytosis independent of Syntaxin binding.

## REFERENCES

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2. Widberg, C.H., Bryant, N.J., Girotti, M., Rea, S. and James, D.E. 2003. Tomosyn interacts with the t-SNAREs Syntaxin 4 and SNAP 23 and plays a role in Insulin-stimulated Glut4 translocation. *J. Biol. Chem.* 278: 35093-35101.
3. Gerst, J.E. 2003. SNARE regulators: matchmakers and matchbreakers. *Biochim. Biophys. Acta* 1641: 99-110.
4. Constable, J.R., Graham, M.E., Morgan, A. and Burgoyne, R.D. 2005. Amisyn regulates exocytosis and fusion pore stability by both Syntaxin-dependent and Syntaxin-independent mechanisms. *J. Biol. Chem.* 280: 31615-31623.
5. Maier, P., Fleckenstein, K., Li, L., Laufs, S., Zeller, W.J., Baum, C., Fruehauf, S., Herskind, C. and Wenz, F. 2006. Overexpression of Mdr-1 using a retroviral vector differentially regulates genes involved in detoxification and apoptosis and confers radioprotection. *Radiat. Res.* 166: 463-473.

## CHROMOSOMAL LOCATION

Genetic locus: STXBP6 (human) mapping to 14q12; Stxbp6 (mouse) mapping to 12 B3.

## SOURCE

Amisyn (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Amisyn 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-67607 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Amisyn (E-17) is recommended for detection of Amisyn 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).

Amisyn (E-17) is also recommended for detection of Amisyn in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Amisyn siRNA (h): sc-61968, Amisyn siRNA (m): sc-61969, Amisyn shRNA Plasmid (h): sc-61968-SH, Amisyn shRNA Plasmid (m): sc-61969-SH, Amisyn shRNA (h) Lentiviral Particles: sc-61968-V and Amisyn shRNA (m) Lentiviral Particles: sc-61969-V.

Molecular Weight of Amisyn: 24 kDa.

Positive Controls: Ramos cell lysate: sc-2216.

## 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.

## PROTOCOLS

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