

# Amisyn (F-9): sc-271959

## 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

1. Scales, S.J., et al. 2002. Amisyn, a novel Syntaxin-binding protein that may regulate SNARE complex assembly. *J. Biol. Chem.* 277: 28271-28279.
2. Widberg, C.H., et al. 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., et al. 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., et al. 2006. Overexpression of MDR1 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 (F-9) is a mouse monoclonal antibody raised against amino acids 1-210 representing full length Amisyn of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Amisyn (F-9) is available conjugated to agarose (sc-271959 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271959 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271959 PE), fluorescein (sc-271959 FITC), Alexa Fluor® 488 (sc-271959 AF488), Alexa Fluor® 546 (sc-271959 AF546), Alexa Fluor® 594 (sc-271959 AF594) or Alexa Fluor® 647 (sc-271959 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271959 AF680) or Alexa Fluor® 790 (sc-271959 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

Amisyn (F-9) is recommended for detection of Amisyn of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

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.

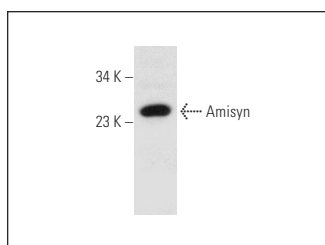
Molecular Weight of Amisyn: 24 kDa.

Positive Controls: Ramos cell lysate: sc-2216 or Saos-2 cell lysate: sc-2235.

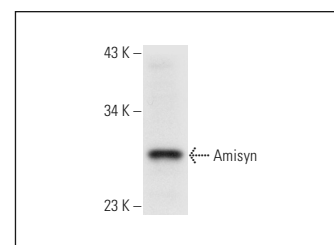
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Amisyn (F-9): sc-271959. Western blot analysis of Amisyn expression in Ramos whole cell lysate.



Amisyn (F-9): sc-271959. Western blot analysis of Amisyn expression in Saos-2 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Liu, Y., et al. 2021. Identification of STXBP6-IRF1 positive feedback loop in regulation of PD-L1 in cancer. *Cancer Immunol. Immunother.* 70: 275-287.

## 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.