

# GIPC (h): 293T Lysate: sc-170835

## BACKGROUND

GIPC, for GAIP interacting protein at the C-terminus (also designated SEMCAP-1 or synectin), is a PDZ domain containing protein that interacts with RGS-GAIP, a GTPase-activating protein (GAP) for  $G_{\alpha_i}$  subunits. GIPC was also identified as TIP-2, a protein that interacts with the viral oncoprotein TAX, which transactivates viral and cellular promoters through interactions with various transcription factors. PDZ domain-containing proteins are primarily localized to cell-cell junctions in epithelial cells and neurons where they coordinate the assembly of multiprotein complexes. GIPC specifically localizes to clusters of vesicles near the plasma membrane and participates in G protein-coupled signaling pathway involved in regulating Clathrin-coated vesicular trafficking. GIPC also associates with membrane bound semaphorin F (M-SemF), which is involved in neuronal axon growth, and it appears to regulate the subcellular distribution of M-SemF in the brain.

## REFERENCES

1. Ranganathan, R. and Ross, E.M. 1997. PDZ domain proteins: scaffolds for signaling complexes. *Curr. Biol.* 7: R770-R773.
2. De Vries, L., Lou, X., Zhao, G., Zheng, B. and Farquhar, M.G. 1998. GIPC, a PDZ domain containing protein, interacts specifically with the C-terminus of RGS-GAIP. *Proc. Natl. Acad. Sci. USA* 95: 12340-12345.
3. Rousset, R., Fabre, S., Desbois, C., Bantignies, F. and Jalinot, P. 1998. The C-terminus of the HTLV-1 TAX oncoprotein mediates interaction with the PDZ domain of cellular proteins. *Oncogene* 16: 643-654.
4. Cai, H. and Reed, R.R. 1999. Cloning and characterization of neuropilin-1-interacting protein: a PSD-95/Dlg/ZO-1 domain-containing protein that interacts with the cytoplasmic domain of neuropilin-1. *J. Neurosci.* 19: 6519-6527.
5. Wang, L.H., Kalb, R.G. and Strittmatter, S.M. 1999. A PDZ protein regulates the distribution of the transmembrane semaphorin, M-SemF. *J. Biol. Chem.* 274: 14137-14146.

## CHROMOSOMAL LOCATION

Genetic locus: GIPC1 (human) mapping to 19p13.12.

## PRODUCT

GIPC (h): 293T Lysate represents a lysate of human GIPC transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

GIPC (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GIPC antibodies. Recommended use: 10-20 µl per lane.

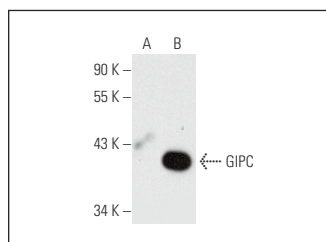
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GIPC (B-12): sc-271822 is recommended as a positive control antibody for Western Blot analysis of enhanced human GIPC expression in GIPC transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

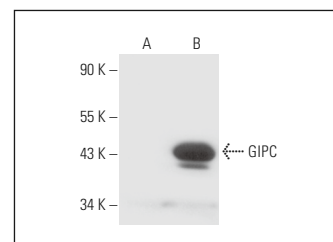
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA



GIPC (B-12): sc-271822. Western blot analysis of GIPC expression in non-transfected: sc-117752 (A) and human GIPC transfected: sc-170835 (B) 293T whole cell lysates.



GIPC (C-9): sc-166148. Western blot analysis of GIPC expression in non-transfected: sc-117752 (A) and human GIPC transfected: sc-170835 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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) for detailed protocols and support products.