

# GIPC (H-55): sc-25556

## 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., et al. 1998. GIPC, a PDZ domain containing protein, interacts specifically with the C-terminus of RGS-GAIP. *Proc. Natl. Acad. Sci. USA* 95: 12340-12345.

## CHROMOSOMAL LOCATION

Genetic locus: GIPC1 (human) mapping to 19p13.12; Gipc1 (mouse) mapping to 8 C2.

## SOURCE

GIPC (H-55) is a rabbit polyclonal antibody raised against amino acids 1-55 of GIPC of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

GIPC (H-55) is recommended for detection of GIPC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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). GIPC (H-55) is also recommended for detection of GIPC in additional species, including bovine.

Suitable for use as control antibody for GIPC siRNA (h): sc-35475, GIPC siRNA (m): sc-35476, GIPC shRNA Plasmid (h): sc-35475-SH, GIPC shRNA Plasmid (m): sc-35476-SH, GIPC shRNA (h) Lentiviral Particles: sc-35475-V and GIPC shRNA (m) Lentiviral Particles: sc-35476-V.

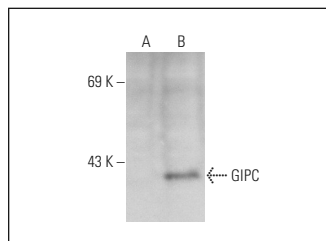
Molecular Weight of GIPC: 40 kDa.

Positive Controls: GIPC (m2): 293T Lysate: sc-110252, A-673 cell lysate: sc-2414 or Caki-1 cell lysate: sc-2224.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



GIPC (H-55): sc-25556. Western blot analysis of GIPC expression in non-transfected: sc-117752 (A) and mouse GIPC transfected: sc-110252 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Lee, N.Y., et al. 2008. Endoglin promotes transforming growth factor  $\beta$ -mediated Smad 1/5/8 signaling and inhibits endothelial cell migration through its association with GIPC. *J. Biol. Chem.* 283: 32527-32533.

## 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 **GIPC (B-12): sc-271822** or **GIPC (B-6): sc-376697**, our highly recommended monoclonal alternatives to GIPC (H-55).