

# INSC (Y-17): sc-243089

## BACKGROUND

INSC (protein inscuteable homolog) is a 579 amino acid protein that interacts with F2RL2/PAR3, GPM1/AGS3, GPM2/LGN and ALS2CR19/PAR3- $\beta$ . INSC may function as an adapter linking the Par3 complex to the GPM1/GPM2 complex. Involved in spindle orientation during mitosis, INSC may also regulate differentiation and cell proliferation in the developing nervous system, play a role in the asymmetric division of fibroblasts and participate in the process of stratification of the squamous epithelium. Localized to the cytoplasm, INSC is expressed in fetal cochlea and exists as five isoforms due to alternative splicing events. Isoform 1 is expressed in various tissues with stronger expression in liver, kidney and small intestine, while isoform 2 is abundantly expressed in small intestine and to a lower extent in lung and pancreas.

## REFERENCES

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2. Katoh, M., et al. 2003. Identification and characterization of human Inscuteable gene in silico. *Int. J. Mol. Med.* 11: 111-116.
3. Zigman, M., et al. 2005. Mammalian inscuteable regulates spindle orientation and cell fate in the developing retina. *Neuron* 48: 539-545.
4. Izaki, T., et al. 2006. Two forms of human Inscuteable-related protein that links Par3 to the Pins homologues LGN and AGS3. *Biochem. Biophys. Res. Commun.* 341: 1001-1006.
5. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610668. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/610668>
6. Vural, A., et al. 2010. Distribution of activator of G-protein signaling 3 within the aggressomal pathway: role of specific residues in the tetratricopeptide repeat domain and differential regulation by the AGS3 binding partners G $\beta$ <sub>1</sub> and mammalian inscuteable. *Mol. Cell. Biol.* 30: 1528-1540.

## CHROMOSOMAL LOCATION

Genetic locus: INSC (human) mapping to 11p15.2; Insc (mouse) mapping to 7 F1.

## SOURCE

INSC (Y-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of INSC 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.

Blocking peptide available for competition studies, sc-243089 P, (100  $\mu$ g 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

INSC (Y-17) is recommended for detection of INSC 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).

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

Suitable for use as control antibody for INSC siRNA (h): sc-96461, INSC siRNA (m): sc-146243, INSC shRNA Plasmid (h): sc-96461-SH, INSC shRNA Plasmid (m): sc-146243-SH, INSC shRNA (h) Lentiviral Particles: sc-96461-V and INSC shRNA (m) Lentiviral Particles: sc-146243-V.

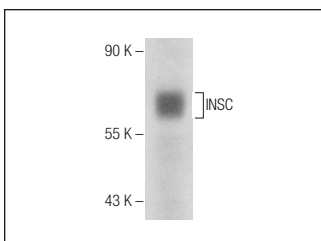
Molecular Weight of INSC isoforms 1/2/3/4/5: 63/58/37/54/62 kDa.

Positive Controls: mouse liver extract: sc-2256.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



INSC (Y-17): sc-243089. Western blot analysis of INSC expression in mouse liver tissue extract.

## STORAGE

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



Try **INSC (G-6): sc-514398**, our highly recommended monoclonal alternative to INSC (Y-17).