

# Gads (F-15): sc-12014

## BACKGROUND

The Src homology 3 (SH3) region is a small protein domain of approximately 60 amino acids present in a large group of proteins. In general, it exists in association with catalytic domains, as in the nonreceptor protein-tyrosine kinases and phospholipase C- $\gamma$ , within structural proteins, such as spectrin or Myosin, and in small adapter proteins, such as Crk and GRB2. SH3 domains are often accompanied by SH2 domains of 100 amino acids that bind to tyrosine-phosphorylated regions of target proteins, frequently linking activated growth factors to putative signal transduction proteins. Deletion or mutation of SH3 domains generally activates the transforming potential of nonreceptor tyrosine kinases, suggesting that SH3 mediates negative regulation of an intrinsic transforming activity. Gads is an adapter proteins that contains both SH2 and SH3 domains. Gads binds to tyrosine-phosphorylated proteins, such as Shc, and functions to couple these proteins to downstream effectors.

## REFERENCES

1. Ullrich, A. and Schlessinger, J. 1990. Signal transduction by receptors with tyrosine kinase activity. *Cell* 61: 203-212.
2. Ellis, C., Moran, M., McCormick, F. and Pawson, T. 1990. Phosphorylation of GAP and GAP-associated proteins by transforming and mitogenic tyrosine kinases. *Nature* 343: 377-381.
3. Morrison, D.K., Kaplan, D.R., Rhee, S.G. and Williams, L.T. 1990. Platelet-derived growth factor (PDGF)-dependent association of phospholipase C- $\gamma$  with the PDGF receptor signaling complex. *Mol. Cell. Biol.* 10: 2359-2366.
4. Cantley, L.C., Auger, K.R., Carpenter, C., Duckworth, B., Graziani, A., Kapeller, R. and Soltoff, S. 1991. Oncogenes and signal transduction. *Cell* 64: 281-302.
5. Koch, C.A., Anderson, D., Moran, M.F., Ellis, C. and Pawson, T. 1991. SH2 and SH3 domains: elements that control interactions of cytoplasmic signaling proteins. *Science* 252: 669-674.

## CHROMOSOMAL LOCATION

Genetic locus: GRAP2 (human) mapping to 22q13.1; Grap2 (mouse) mapping to 15 E1.

## SOURCE

Gads (F-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Gads 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-12014 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Gads (F-15) is recommended for detection of Gads 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).

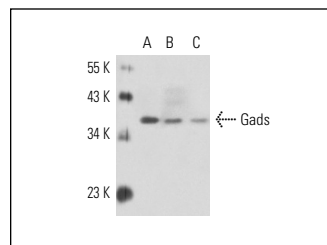
Gads (F-15) is also recommended for detection of Gads in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Gads siRNA (h): sc-40958, Gads siRNA (m): sc-40959, Gads shRNA Plasmid (h): sc-40958-SH, Gads shRNA Plasmid (m): sc-40959-SH, Gads shRNA (h) Lentiviral Particles: sc-40958-V and Gads shRNA (m) Lentiviral Particles: sc-40959-V.

Molecular Weight of Gads: 40 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or K-562 whole cell lysate: sc-2203.

## DATA



Gads (F-15): sc-12014. Western blot analysis of Gads expression in HeLa (A), MCF7 (B) and K-562 (C) whole cell lysates.

## 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 **Gads (UW40): sc-73652** or **Gads (35): sc-136348**, our highly recommended monoclonal alternatives to Gads (F-15).