

Gads (UW40): sc-73652

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- γ , 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., et al. 1990. Phosphorylation of GAP and GAP-associated proteins by transforming and mitogenic tyrosine kinases. *Nature* 343: 377-381.
3. Morrison, D.K., et al. 1990. Platelet-derived growth factor (PDGF)-dependent association of phospholipase C- γ with the PDGF receptor signaling complex. *Mol. Cell. Biol.* 10: 2359-2366.
4. Cantley, L.C., et al. 1991. Oncogenes and signal transduction. *Cell* 64: 281-302.

CHROMOSOMAL LOCATION

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

SOURCE

Gads (UW40) is a mouse monoclonal antibody raised against GST-fusion protein expressing Gads of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Gads (UW40) is available conjugated to agarose (sc-73652 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-73652 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-73652 PE), fluorescein (sc-73652 FITC), Alexa Fluor® 488 (sc-73652 AF488), Alexa Fluor® 546 (sc-73652 AF546), Alexa Fluor® 594 (sc-73652 AF594) or Alexa Fluor® 647 (sc-73652 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-73652 AF680) or Alexa Fluor® 790 (sc-73652 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Gads (UW40) 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 μ g per 100-500 μ 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).

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.

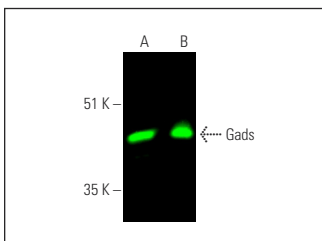
Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or MOLT-4 cell lysate: sc-2233.

RECOMMENDED SUPPORT REAGENTS

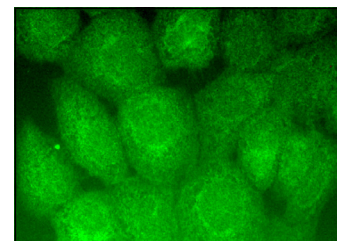
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



Gads (UW40): sc-73652. Near-infrared western blot analysis of Gads expression in Jurkat (A) and MOLT-4 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 680: sc-516180.



Gads (UW40): sc-73652. Immunofluorescence staining of formalin-fixed A-431 cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

1. Lugassy, J., et al. 2015. Modulation of TCR responsiveness by the Grb2-family adaptor, Gads. *Cell. Signal.* 27: 125-134.
2. Ang, D.A., et al. 2024. Aberrant non-canonical NF κ B signalling reprograms the epigenome landscape to drive oncogenic transcriptomes in multiple myeloma. *Nat. Commun.* 15: 2513.

STORAGE

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