BACKGROUND
Activators of G-protein signaling (AGS) are non-G protein-coupled receptor (GPCR)-ligand-induced initiators of heterotrimeric G protein signaling pathways that function either downstream of GPCR effectors or at the level of heterotrimeric G proteins. AGS3 is a $G_{\alpha i}$-binding protein that is capable of displacing $G_{\beta \gamma}$ and associating with $G_{\alpha i}$-GDP, thereby stabilizing the GDP-bound conformation of $G_{\alpha i}$. AGS3 localizes to the cytoplasm and is expressed in rat brain, PC12 cells, NG108-15 cells and DDT 1-M F2 smooth muscle cells. In rat, a 227 amino acid long form of AGS3, that contains 7 TPR (tetratricopeptide repeat) domains which target proteins to subcellular regions of neuroblasts, is more prevalent in adult rat brain, whereas the 166 amino acid short form of AGS3 is more prevalent in adult rat heart.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: GPSM1 (human) mapping to 9q34.3; Gpsm1 (mouse) mapping to 2 A3.

SOURCE
AGS3 (G-2) is a mouse monoclonal antibody raised against amino acids 346-470 mapping within an internal region of AGS3 of rat origin.

PRODUCT
Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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

APPLICATIONS
AGS3 (G-2) is recommended for detection of AGS3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 AGS3 siRNA (h): sc-44441, AGS3 siRNA (m): sc-41693, AGS3 shRNA Plasmid (h): sc-44441-5H, AGS3 shRNA Plasmid (m): sc-41693-5H, AGS3 shRNA (h) Lentiviral Particles: sc-44441-V and AGS3 shRNA (m) Lentiviral Particles: sc-41693-V.

Molecular Weight of AGS3: 75 kDa.

Positive Controls: AGS3 (m2): 293T Lysate: sc-126400, rat brain extract: sc-2392 or rat cerebellum extract: sc-2398.

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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-agarose: sc-2035 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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

AGS3 (G-2): sc-271721. Western blot analysis of AGS3 expression in NIH/3T3 (A) and C6 (B) whole cell lysates and rat cerebellum (C) and rat brain (D) tissue extracts.

AGS3 (G-2): sc-271721. Western blot analysis of AGS3 expression in non-transfected: sc-117752 (A) and mouse AGS3 transfected: sc-117752 (B) 293T whole cell lysates and rat brain tissue extract (C).

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

AGS3 (G-2): sc-271721. Western blot analysis of AGS3 expression in NIH/3T3 (A) and C6 (B) whole cell lysates and rat cerebellum (C) and rat brain (D) tissue extracts.

AGS3 (G-2): sc-271721. Western blot analysis of AGS3 expression in non-transfected: sc-117752 (A) and mouse AGS3 transfected: sc-126400 (B) 293T whole cell lysates and rat brain tissue extract (C).

PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support products.