

AGS3 (m2): 293T Lysate: sc-126400

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_{α_i} -binding protein that is capable of displacing $G_{\beta\gamma}$ and associating with G_{α} -GDP, thereby stabilizing the GDP-bound conformation of G_{α} . AGS3 localizes to the cytoplasm and is expressed in rat brain, PC12 cells, NG108-15 cells, and DDT(1)-MF2 smooth muscle cells. In rat, a 227-amino acid long form of AGS3, that contains seven 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

1. Takesono, A., et al. 1999. Receptor-independent activators of heterotrimeric G protein signaling pathways. *J. Biol. Chem.* 274: 33202-33205.
2. Natochin, M., et al. 2000. AGS3 inhibits GDP dissociation from G_{α} subunits of the G_i family and rhodopsin-dependent activation of transducin. *J. Biol. Chem.* 275: 40981-40985.
3. De Vries, L., et al. 2000. Activator of G protein signaling 3 is a guanine dissociation inhibitor for G_{α_i} subunits. *Proc. Natl. Acad. Sci. USA* 97: 14364-14369.
4. Bernard, M.L., et al. 2001. Selective interaction of AGS3 with G proteins and the influence of AGS3 on the activation state of G proteins. *J. Biol. Chem.* 276: 1585-1593.
5. Pizzinat, N., Takesono, A. and Lanier, S.M. 2001. Identification of a truncated form of the G protein regulator AGS3 in heart that lacks the tetratricopeptide repeat domains. *J. Biol. Chem.* 276: 16601-16610.
6. Cismowski, M.J., et al. 2001. Receptor-independent activators of heterotrimeric G proteins. *Life Sci.* 68: 2301-2308.

CHROMOSOMAL LOCATION

Genetic locus: Gpsm1 (mouse) mapping to 2 A3.

PRODUCT

AGS3 (m2): 293T Lysate represents a lysate of mouse AGS3 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

AGS3 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive AGS3 antibodies. Recommended use: 10-20 μ l per lane.

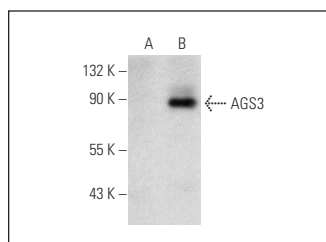
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

AGS3 (G-2): sc-271721 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse AGS3 expression in AGS3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



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.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.