SANTA CRUZ BIOTECHNOLOGY, INC.

AGS3 (T-20): sc-249914

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 effecters 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_{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 $G_{\alpha i}$ 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., et al. 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 (human) mapping to 9q34.3.

SOURCE

AGS3 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AGS3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-249914 P, (100 µg 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

AGS3 (T-20) is recommended for detection of AGS3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with GPSM3 or LGN.

Suitable for use as control antibody for AGS3 siRNA (h): sc-44441, AGS3 shRNA Plasmid (h): sc-44441-SH and AGS3 shRNA (h) Lentiviral Particles: sc-44441-V.

Molecular Weight of AGS3: 75 kDa.

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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **AGS3 (G-2): sc-271721**, our highly recommended monoclonal alternative to AGS3 (T-20).