

GALR1 (C-20): sc-16216

BACKGROUND

GALR1 (galanin receptor, GALNR, GALNR1) is a G protein-coupled receptor for the neuropeptide galanin that influences endocrine secretions, intestinal motility, memory, weight and pain perception. GALR1 inhibits adenylyl cyclase via a G protein of the G_i/G_o family. GALR1 is widely expressed in the brain and spinal cord, and in peripheral sites such as the small intestine and heart. The rat galanin receptor cDNA cloned from an insulinoma cell line is a predicted 346-amino acid G protein-coupled receptor with 92% homology to the human GALR1.

REFERENCES

1. Habert-Ortoli, E., et al. 1994. Molecular cloning of a functional human galanin receptor. *Proc. Natl. Acad. Sci. USA* 91: 9780-9783.
2. Lorimer, D.D., et al. 1996. Cloning and quantification of galanin-1 receptor expression by mucosal cells lining the human gastrointestinal tract. *Biochem. Biophys. Res. Commun.* 222: 379-385.
3. Lorimer, D.D., et al. 1997. Cloning, chromosomal location, and transcriptional regulation of the human galanin-1 receptor gene (GALN1R). *Biochem. Biophys. Res. Commun.* 241: 558-564.
4. Jacoby, A.S., et al. 1997. Structural organization of the mouse and human GALR1 galanin receptor genes (Galnr and GALNR) and chromosomal localization of the mouse gene. *Genomics* 45: 496-508.
5. Smith, K.E., et al. 1998. Cloned human and rat galanin GALR3 receptors. Pharmacology and activation of G-protein inwardly rectifying K^+ channels. *J. Biol. Chem.* 273: 23321-23326.
6. Depczynski, B., et al. 1998. Distribution and characterization of the cell types expressing GALR2 mRNA in brain and pituitary gland. *Ann. N. Y. Acad. Sci.* 863: 120-128.
7. Kolakowski, L.F., Jr., et al. 1998. Molecular characterization and expression of cloned human galanin receptors GALR2 and GALR3. *J. Neurochem.* 71: 2239-2251.

CHROMOSOMAL LOCATION

Genetic locus: GALR1 (human) mapping to 18q23; Galr1 (mouse) mapping to 18 E3.

SOURCE

GALR1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GALR1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-16216 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

GALR1 (C-20) is recommended for detection of GALR1 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).

GALR1 (C-20) is also recommended for detection of GALR1 in additional species, including bovine, porcine and avian.

Suitable for use as control antibody for GALR1 siRNA (h): sc-105387, GALR1 siRNA (m): sc-145320, GALR1 shRNA Plasmid (h): sc-105387-SH, GALR1 shRNA Plasmid (m): sc-145320-SH, GALR1 shRNA (h) Lentiviral Particles: sc-105387-V and GALR1 shRNA (m) Lentiviral Particles: sc-145320-V.

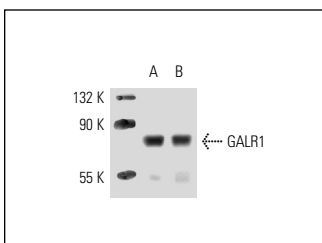
Molecular weight of GALR1: 70 kDa.

Positive Controls: SW480 cell lysate: sc-2219 or A-375 cell lysate: sc-3811.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



GALR1 (C-20): sc-16216. Western blot analysis of GALR1 expression in SW480 (A) and A-375 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Xu, X., et al. 2012. The effects of galanin on neuropathic pain in streptozotocin-induced diabetic rats. *Eur. J. Pharmacol.* 680: 28-33.

STORAGE

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