



GALR2 (H-90): sc-30023

BACKGROUND

The 387 amino acid galanin receptor-2 (GALR2) protein belongs to a family of G protein-coupled receptors that specifically bind galanin, a neuropeptide distributed throughout the central and peripheral nervous system, the pituitary gland, the gastrointestinal tract and in the endocrine and exocrine pancreas. GALR2 mRNA is abundant in parvocellular paraventricular nuclei, but in contrast to GALR1, is not expressed in magnocellular neurons or in supraoptic nuclei. Like GALR1 mRNA, GALR2 mRNA is expressed in the POMC neurons, dorsomedial nucleus, arcuate nucleus and in restricted peripheral tissue, with highest mRNA levels in human small intestine. Galanin-like peptide (GALP) is a putative endogenous ligand for GALR2. Binding of GALP to GALR2 results in increased GTP- γ -S binding to the membrane-bound GALR2. GALR2 is therefore a receptor that mediates important functions of galanin in the hypothalamic-pituitary axis, plays a role in hippocampal and cerebellar function and mediates jejunal contraction.

REFERENCES

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- Kerr, N.C., et al. 2000. Galanin-like peptide (GALP) is expressed in rat hypothalamus and pituitary, but not in DRG. *Neuroreport* 11: 3909-3913.
- Zachariou, V., et al. 2001. Galanin receptor 1 gene expression is regulated by cyclic AMP through a CREB-dependent mechanism. *J. Neurochem.* 76: 191-200.
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CHROMOSOMAL LOCATION

Genetic locus: GALR2 (human) mapping to 17q25.3; Galr2 (mouse) mapping to 11 E2.

SOURCE

GALR2 (H-90) is a rabbit polyclonal antibody raised against amino acids 298-387 mapping at the C-terminus of GALR2 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.

APPLICATIONS

GALR2 (H-90) is recommended for detection of GALR2 of human and, to a lesser extent, mouse and rat 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 GALR2 siRNA (h): sc-40008 and GALR2 siRNA (m): sc-40009.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.