

GPR14 (M-250): sc-28998

BACKGROUND

GPR14 (G protein-coupled receptor), also designated SENR (sensory epithelium neuropeptide-like receptor), was initially cloned as an "orphan" receptor, which is a receptor that binds an unidentified natural ligand. Further studies have shown that urotensin II (UII), a cyclic neuropeptide, binds to GPR14 with very high affinity. Subsequently, cells transfected with GPR14 experience an increase in calcium concentration upon binding of urotensin II. It is the calcium influx and localization of GPR14 in heart tissues that suggests GPR14 may play a role in the contraction of vascular smooth muscles in response to the specific binding of urotensin II. GPR14 is also detected in pancreas and, to a lesser extent, in brain tissues.

CHROMOSOMAL LOCATION

Genetic locus: UTS2R (human) mapping to 17q25.3; Uts2r (mouse) mapping to 11 E2.

SOURCE

GPR14 (M-250) is a rabbit polyclonal antibody raised against amino acids 136-385 mapping at the C-terminus of GPR14 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG 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.

RESEARCH USE

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

APPLICATIONS

GPR14 (M-250) is recommended for detection of GPR14 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (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 GPR14 siRNA (h): sc-106799, GPR14 siRNA (m): sc-37107, GPR14 shRNA Plasmid (h): sc-106799-SH, GPR14 shRNA Plasmid (m): sc-37107-SH, GPR14 shRNA (h) Lentiviral Particles: sc-106799-V and GPR14 shRNA (m) Lentiviral Particles: sc-37107-V.

Molecular Weight of glycosylated GPR14: 60 kDa.

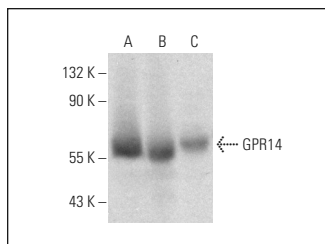
Molecular Weight of deglycosylated GPR14: 42 kDa.

Positive Controls: mouse heart extract: sc-2254, rat heart extract: sc-2393 or mouse pancreas extract: sc-364244.

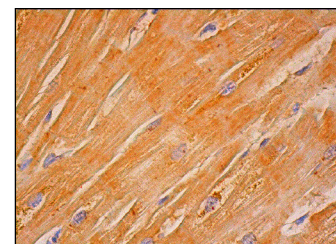
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



GPR14 (M-250): sc-28998. Western blot analysis of GPR14 expression in mouse heart (A), rat heart (B) and mouse pancreas (C) tissue extract.



GPR14 (M-250): sc-28998. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

- Xu, S., et al. 2009. Urotensin II induces migration of endothelial progenitor cells via activation of the RhoA/Rho kinase pathway. *Tohoku J. Exp. Med.* 219: 283-288.

PROTOCOLS

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

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Try **GPR14 (D-4): sc-514460** or **GPR14 (D-1): sc-515569**, our highly recommended monoclonal alternatives to GPR14 (M-250).