

# GPR14 (E-18): sc-10194

## 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 (mouse) mapping to 11 E2.

## SOURCE

GPR14 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GPR14 of rat 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-10194 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

GPR14 (E-18) is recommended for detection of GPR14 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GPR14 siRNA (m): sc-37107, GPR14 shRNA Plasmid (m): sc-37107-SH and GPR14 shRNA (m) Lentiviral Particles: sc-37107-V.

Molecular Weight of glycosylated GPR14: 60 kDa.

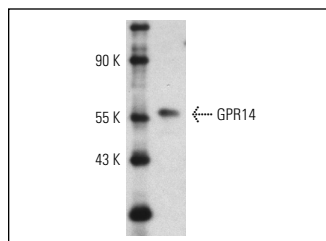
Molecular Weight of deglycosylated GPR14: 42 kDa.

Positive Controls: rat pancreas extract: sc-364806.

## 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



GPR14 (E-18): sc-10194. Western blot analysis of GPR14 expression in rat pancreas tissue extract.

## SELECT PRODUCT CITATIONS

1. Lu, W., et al. 2006. Molecular characterization and expression of urotensin II and its receptor in the flounder (*Platichthys flesus*): a hormone system supporting body fluid homeostasis in euryhaline fish. *Endocrinology* 147: 3692-3708.
2. Morimoto, R., et al. 2008. Immunolocalization of urotensin II and its receptor in human adrenal tumors and attached non-neoplastic adrenal tissues. *Peptides* 29: 873-880.

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