

GPR91 (K-14): sc-54702

BACKGROUND

GPR91 (formerly known as P2U2) is a G protein-coupled, dicarboxylic acid succinate receptor. It has a high level of expression in the kidney, predominantly in the proximal tubules, and localizes to the plasma membrane. It has also been found at low levels in the liver and the spleen. GPR91 functions as a citric acid cycle intermediate succinate receptor. Two signaling pathways result from GPR91 activation, the pertussis-toxin-sensitive Gi/Go pathway and the pertussis-toxin-insensitive Gq pathway. Four amino acid residues are necessary for GPR91 activation by succinate, Arg 99, His 103, Arg 252, and Arg 281. GPR91 plays an important role in the succinate-induced hypertensive effect and may be involved in renovascular hypertension, a disease linked to diabetes, renal failure, and atherosclerosis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Sucnr1 (rat) mapping to 2q31.

SOURCE

GPR91 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of GPR91 of rat 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-54702 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR91 (K-14) is recommended for detection of GPR91 of rat 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).

Molecular Weight of GPR91: 38 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.

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.