



# PKR1 (N-18): sc-54311

## BACKGROUND

The prokineticin receptors, PKR1 (GPR73a) and PKR2 (GPR73b), are G protein-coupled receptors responsible for mediating the signal transduction of both EG-VEGF and Prokineticin-2. PKR1 and PKR2 share 87% sequence identity. PKR1 is predominantly expressed in the peripheral tissues and PKR2 is typically expressed in the CNS. Both receptors are found in the testis. Upon ligand binding, PKR1 and PKR2 associate with G protein and can promote intracellular calcium mobilization, stimulate phosphoinositide turnover and activate the MAPK pathway. These receptors play a role in a variety of physiological events such as intestinal contraction, ingestive behavior, spermatogenesis, angiogenesis, circadian rhythm, neuronal survival and hyperalgesia. PKR1 may promote cardiomyocyte survival. PKR2 is essential for the normal development of the olfactory bulb. Mutations in the gene encoding PKR2 may result in Kallmann syndrome type 3.

## REFERENCES

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- Negri, L., et al. 2005. Biological activities of Bv8 analogues. *Br. J. Pharmacol.* 146: 625-632.
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- Dode, C., et al. 2006. Kallmann syndrome: mutations in the genes encoding Prokineticin-2 and prokineticin receptor 2. *PLoS Genet.* 2: e175.
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## CHROMOSOMAL LOCATION

Genetic locus: PROKR1 (human) mapping to 2p13.1.

## STORAGE

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

## SOURCE

PKR1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of PKR1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-54311 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PKR1 (N-18) is recommended for detection of PKR1 of human 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).

Suitable for use as control antibody for PKR1 siRNA (h): sc-72361, PKR1 shRNA Plasmid (h): sc-72361-SH and PKR1 shRNA (h) Lentiviral Particles: sc-72361-V.

Molecular Weight of PKR1: 45 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.

## 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.