

# PIRT (S-14): sc-241616

## BACKGROUND

PIRT (phosphoinositide-interacting regulator of transient receptor potential channels), also known as phosphoinositide-interacting protein, is a 137 amino acid multi-pass membrane protein. Highly conserved among vertebrates, PIRT consists of two transmembrane domains and one putative C-terminal phosphoinositide-binding domain. Although PIRT is expressed in peripheral nervous system, with highest levels in dorsal root ganglion and trigeminal neurons, and lowest levels in sympathetic and enteric neurons, it is not expressed in spinal cord. PIRT is a required component of the VR1 complex, which positively regulates VR1, a sensor of both noxious heat and capsaicin. Correspondingly, PIRT knockout results in impaired responses to noxious heat and capsaicin exposure, while VR1 remains unaltered. The gene that encodes PIRT maps to human chromosome 17p12.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PIRT (human) mapping to 17p12; Pirt (mouse) mapping to 11 B3.

## SOURCE

PIRT (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PIRT of human origin.

## STORAGE

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

## 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-241616 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PIRT (S-14) is recommended for detection of PIRT of mouse, rat and 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).

PIRT (S-14) is also recommended for detection of PIRT in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PIRT siRNA (m): sc-140658, PIRT shRNA Plasmid (m): sc-140658-SH and PIRT shRNA (m) Lentiviral Particles: sc-140658-V.

Molecular Weight of PIRT: 15 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.