SANTA CRUZ BIOTECHNOLOGY, INC.

Pael-R (K-20): sc-27549

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pael-R (Parkin-associated endothelin receptor-like receptor), also known as GPR37 (G protein-coupled receptor 37), EDNRBL or ETBR-LP-1 (endothelin B receptor-like protein 1), is a 613 amino acid multi-pass membrane protein that belongs to the G-protein coupled receptor 1 family. Pael-R is expressed in spinal cord and brain, with lower levels found in liver, testis and placenta. When overexpressed, Pael-R causes cells to unfold and accumulate, eventually causing dopaminergic neuronal death in juvenile Parkinson disease (PDJ). Pael-R functions as an orphan receptor and also forms a complex with CHIP, HSP 70 and Parkin. The gene encoding Pael-R maps to human chromosome 7, which comprises nearly 5% of the human genome and has been linked to Osteogenesis imperfecta, Pendred syndrome and Williams-Beuren syndrome.

REFERENCES

1. Imai, Y., et al. 2001. An unfolded putative transmembrane polypeptide, which can lead to endoplasmic reticulum stress, is a substrate of Parkin. Cell 105: 891-902.
2. Imai, Y., et al. 2002. CHIP is associated with Parkin, a gene responsible for familial Parkinson's disease, and enhances its ubiquitin ligase activity. Mol. Cell 10: 55-67.
3. Takahashi, R., et al. 2003. Pael receptor, endoplasmic reticulum stress, and Parkinson's disease. J. Neurol. 250: III25-III29.
4. Kaneko, M., et al. 2004. Protective effects of HRD1 and 4-phenylbutyric acid against neuronal cell death. Nihon Yakurigaku Zasshi 124: 391-398.
5. Murakami, T., et al. 2004. Pael-R is accumulated in Lewy bodies of Parkinson's disease. Ann. Neurol. 55: 439-442.
6. Omura, T., et al. 2006. A ubiquitin ligase HRD1 promotes the degradation of Pael receptor, a substrate of Parkin. J. Neurochem. 99:1456-1469.
7. Imai, Y., et al. 2007. Pael receptor is involved in dopamine metabolism in the nigrostriatal system. Neurosci. Res. 59:413-425.

CHROMOSOMAL LOCATION

Genetic locus: GPR37 (human) mapping to 7q31.33; Gpr37 (mouse) mapping to 6 A3.1.

SOURCE

Pael-R (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Pael-R of human 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-27549 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.

APPLICATIONS

Pael-R (K-20) is recommended for detection of Pael-R 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).

Pael-R (K-20) is also recommended for detection of Pael-R in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Pael-R siRNA (h): sc-106350, Pael-R siRNA (m): sc-77374, Pael-R shRNA Plasmid (h): sc-106350-SH, Pael-R shRNA Plasmid (m): sc-77374-SH, Pael-R shRNA (h) Lentiviral Particles: sc-106350-V and Pael-R shRNA (m) Lentiviral Particles: sc-77374-V.

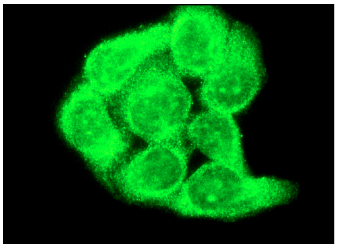
Molecular Weight of Pael-R: 67 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

DATA



Pael-R (K-20): sc-27549. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

RESEARCH USE

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