

Pael-R (G-6): sc-390110



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. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the $\text{pro}\alpha 2(\text{I})$ gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Zeng, Z., et al. 1997. A novel endothelin receptor type-B-like gene enriched in the brain. *Biochem. Biophys. Res. Commun.* 233: 559-567.
3. Donohue, P.J., et al. 1998. A human gene encodes a putative G protein-coupled receptor highly expressed in the central nervous system. *Brain Res. Mol. Brain Res.* 54: 152-160.
4. Iwasaki, S., et al. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. *Arch. Otolaryngol. Head Neck Surg.* 127: 705-708.

CHROMOSOMAL LOCATION

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

SOURCE

Pael-R (G-6) is a mouse monoclonal antibody raised against amino acids 31-280 mapping within an N-terminal extracellular domain of Pael-R of human origin.

PRODUCT

Each vial contains 200 μg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Pael-R (G-6) is available conjugated to agarose (sc-390110 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-390110 HRP), 200 $\mu\text{g}/\text{ml}$, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390110 PE), fluorescein (sc-390110 FITC), Alexa Fluor[®] 488 (sc-390110 AF488), Alexa Fluor[®] 546 (sc-390110 AF546), Alexa Fluor[®] 594 (sc-390110 AF594) or Alexa Fluor[®] 647 (sc-390110 AF647), 200 $\mu\text{g}/\text{ml}$, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390110 AF680) or Alexa Fluor[®] 790 (sc-390110 AF790), 200 $\mu\text{g}/\text{ml}$, for Near-Infrared (NIR) WB, IF and FCM.

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 (G-6) is recommended for detection of Pael-R of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

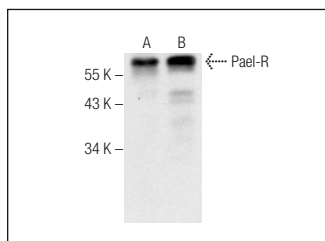
Molecular Weight of Pael-R: 67 kDa.

Positive Controls: H4 cell lysate: sc-2408, SK-N-SH cell lysate: sc-2410 or SK-BR-3 cell lysate: sc-2218.

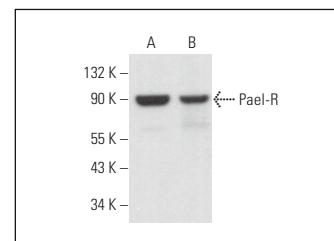
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Pael-R (G-6): sc-390110. Western blot analysis of Pael-R expression in H4 (A) and SK-N-SH (B) whole cell lysates.



Pael-R (G-6): sc-390110. Western blot analysis of Pael-R expression in Y79 (A) and SK-BR-3 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Bang, S., et al. 2018. GPR37 regulates macrophage phagocytosis and resolution of inflammatory pain. *J. Clin. Invest.* 128: 3568-3582.
2. Bhattacharya, P., et al. 2023. Efferocytes release extracellular vesicles to resolve inflammation and tissue injury via prosaposin-GPR37 signaling. *Cell Rep.* 42: 112808.

RESEARCH USE

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

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