SANTA CRUZ BIOTECHNOLOGY, INC.

PAQR3 (A-8): sc-515831

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The PAQR superfamily of receptors include AdipoR1, AdipoR2, and PAQR3-PAQR9. PAQR proteins encode functional receptors with a broad range of ligand specificities. The best characterized family members are AdipoR1 and AdipoR2, which regulate fatty acid oxidation and the uptake of glucose by adiponectin. Certain PAQR family members have been shown to specifically bind progesterone and mediate non-genomic effects. In yeast, since PAQR progeseterone-dependent signaling does not require heterotrimeric G-proteins, it is suspected that PAQRs may function as a novel class of G protein-coupled receptors. PAQR3 (Progestin and adipoQ receptor family member 3), also designated Raf kinase trapping to Golgi, is a 311 amino acid multi-pass membrane protein that is localized to the Golgi apparatus membrane. By sequestering it to the Golgi, PAQR3 acts as a spatial regulator of RAF1 kinase.

REFERENCES

1. Fernandes, M.S., et al. 2005. Regulated expression of putative membrane progestin receptor homologues in human endometrium and gestational tissues. J. Endocrinol. 187: 89-101.
2. Tang, Y.T., et al. 2005. PAQR proteins: a novel membrane receptor family defined by an ancient 7-transmembrane pass motif. J. Mol. Evol. 61: 372-380.
3. Feng, L., et al. 2007. Spatial regulation of Raf kinase signaling by RKTG. Proc. Natl. Acad. Sci. USA 104: 14348-14353.
4. Thomas, P. 2008. Characteristics of membrane progestin receptor α (mPRα) and progesterone membrane receptor component 1 (PGMRC1) and their roles in mediating rapid progestin actions. Front. Neuroendocrinol. 29: 292-312.
5. Romero-Sánchez, M., et al. 2008. Expression profile of heptahelical putative membrane progesterone receptors in epithelial ovarian tumors. Hum. Pathol. 39: 1026-1033.

CHROMOSOMAL LOCATION

Genetic locus: PAQR3 (human) mapping to 4q21.21.

SOURCE

PAQR3 (A-8) is a mouse monoclonal antibody raised against amino acids 1-42 mapping at the N-terminus of PAQR3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PAQR3 (A-8) is available conjugated to agarose (sc-515831 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515831 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515831 PE), fluorescein (sc-515831 FITC), Alexa Fluor® 488 (sc-515831 AF488), Alexa Fluor® 546 (sc-515831 AF546), Alexa Fluor® 594 (sc-515831 AF594) or Alexa Fluor® 647 (sc-515831 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515831 AF680) or Alexa Fluor® 790 (sc-515831 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PAQR3 (A-8) is recommended for detection of PAQR3 of 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 PAQR3 siRNA (h): sc-89094, PAQR3 shRNA Plasmid (h): sc-89094-SH and PAQR3 shRNA (h) Lentiviral Particles: sc-89094-V.

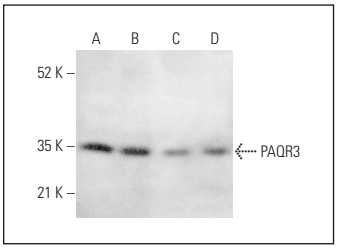
Molecular Weight of PAQR3: 36 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or MDA-MB-231 cell lysate: sc-2232.

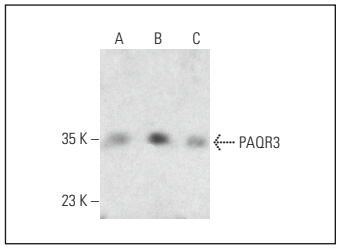
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



PAQR3 (A-8): sc-515831. Western blot analysis of PAQR3 expression in IMR-32 (**A**), MDA-MB-231 (**B**), NIH/3T3 (**C**) and Neuro-2A (**D**) whole cell lysates.



PAQR3 (A-8): sc-515831. Western blot analysis of PAQR3 expression in BC_3H1 (**A**), EOC 20 (**B**) and Neuro-2A (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Qiao, S., et al. 2020. Silencing PAQR3 protects against oxygen-glucose deprivation/reperfusion-induced neuronal apoptosis via activation of PI3K/AKT signaling in PC-12 cells. Life Sci. 265: 118806.

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.