SANTA CRUZ BIOTECHNOLOGY, INC.

PAF-R (N-17): sc-8741

BACKGROUND

Platelet-activating factor (PAF) is a pro-inflammatory lipid mediator that activates many cell types including leukocytes, platelets and vascular endothelial cells in response to cutaneous inflammation. PAF signaling is primarily directed through binding to the G protein-coupled PAF-receptors (PAF-R) and results in signal transduction by various pathways that are regulated by phospholipase C, phospholipase A2 and mitogen-activated protein kinases. Activation of PAF-R is associated with alterations in cell morphology, cytoskeletal remodeling and expression of inflammatory modulators, including cyclo-oxygenase-2, interleukin (IL)-6 and IL-8. Expression of PAF-R is upregulated by PAF and gut flora in intestinal epithelium. PAF-R transcription is downregulated by glucocorticoids as a result of eosinophil depletion, suggesting that PAF-R may play a role in both host defenses and inflammatory responses.

REFERENCES

1. Nakamura, M., et al. 1991. Molecular cloning and expression of platelet-activating factor receptor from human leukocytes. J. Biol. Chem. 266: 20400-20405.
2. Kunz, D., et al. 1992. The human leukocyte platelet-activating factor receptor. cDNA cloning, cell surface expression, and construction of a novel epitope-bearing analog. J. Biol. Chem. 267: 9101-9106.
3. Muller, E., et. al. 1993. Identification and functional characterization of platelet-activating factor receptors in human leukocyte populations using polyclonal anti-peptide antibody. Proc. Natl. Acad. Sci. USA 90: 5818-5822.
4. Predescu, D., et al. 1996. The vascular distribution of the platelet-activating factor receptor. Eur. J. Cell Biol. 69: 86-98.
5. Kotelevets, L., et al. 1998. Inhibition by platelet-activating factor of Src- and hepatocyte growth factor-dependent invasiveness of intestinal and kidney epithelial cells. Phosphatidylinositol 3'-kinase is a critical mediator of tumor invasion. J. Biol. Chem. 273: 14138-14145.
6. Barber, L.A., et al. 1998. Expression of the platelet-activating factor receptor results in enhanced ultraviolet B radiation-induced apoptosis in a human epidermal cell line. J. Biol. Chem. 273: 18891-18897.

CHROMOSOMAL LOCATION

Genetic locus: PTAFR (human) mapping to 1p35.3; Ptafr (mouse) mapping to 4 D2.2.

SOURCE

PAF-R (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PAF-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-8741 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

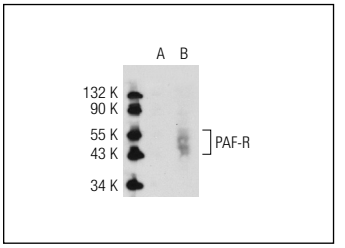
PAF-R (N-17) is recommended for detection of PAF-R of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 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 PAF-R siRNA (h): sc-40165, PAF-R siRNA (m): sc-40166, PAF-R shRNA Plasmid (h): sc-40165-SH, PAF-R shRNA Plasmid (m): sc-40166-SH, PAF-R shRNA (h) Lentiviral Particles: sc-40165-V and PAF-R shRNA (m) Lentiviral Particles: sc-40166-V.

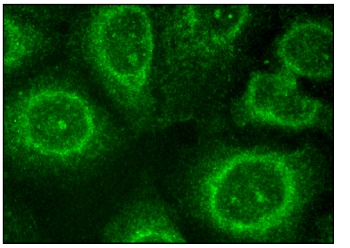
Molecular Weight of PAF-R: 45/67/116 kDa.

Positive Controls: PAF-R (h4): 293T Lysate: sc-159487.

DATA



PAF-R (N-17): sc-8741. Western blot analysis of PAF-R expression in non-transfected: sc-117752 (**A**) and human PAF-R transfected: sc-159487 (**B**) 293T whole cell lysates.



PAF-R (N-17): sc-8741. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nucleolar localization.

SELECT PRODUCT CITATIONS

1. Stjernholm-Vladic, Y., et al. 2004. Factors involved in the inflammatory events of cervical ripening in humans. Reprod. Biol. Endocrinol. 2: 74.
2. Lang, P.A., et al. 2005. Stimulation of erythrocyte ceramide formation by platelet-activating factor. J. Cell Sci. 118: 1233-1243.
3. Jin, Y., et al. 2005. Human resting $CD16^-$, $CD16^+$ and IL-2-, IL-12-, IL-15- or IFN-α-activated natural killer cells differentially respond to sphingosylphosphorylcholine, lysophosphatidylcholine and platelet-activating factor. Eur. J. Immunol. 35: 2699-2708.
4. Wieder, T., et al. 2006. Studying mechanisms of eryptosis. Cytotechnology 49: 117-132.

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.