

FPR3 (H-75): sc-66900

BACKGROUND

The N-formyl peptide receptor (FPR) family is comprised of three members, FPR, FPR3 (also designated FPRL1, lipoxin A4 receptor, FPRH1 or FPR2) and FPR like-2 (FPRL2), all of which are chemotactic G protein-coupled receptors that contain seven transmembrane domains. These receptors are found on the surface of phagocytic leukocytes, such as neutrophils and monocytes, and each family member contains specific residues, which are responsible for determining its ligand specificity. FPR3 is a promiscuous receptor that binds to several ligands, including lipoxin A4, N-formyl-methionyl-leucyl-phenylalanine (fMLP), serum Amyloid A (SAA), prion peptide and the 42 amino acid form of β -Amyloid. Upon activation, FPR3 induces migration and calcium mobilization in human monocytes and neutrophils and is involved in inflammatory and host defense responses. FPR3 may mediate inflammation in prion and Alzheimer's diseases, which makes it a potential target for therapeutic agents.

REFERENCES

- Hu, J.Y., Le, Y., Gong, W., Dunlop, N.M., Gao, J.L., Murphy, P.M. and Wang, J.M. 2001. Synthetic peptide MMK-1 is a highly specific chemotactic agonist for leukocyte FPRL1. *J. Leukoc. Biol.* 70: 155-161.
- Le, Y., Oppenheim, J.J. and Wang, J.M. 2001. Pleiotropic roles of formyl peptide receptors. *Cytokine Growth Factor Rev.* 12: 91-105.
- Christophe, T., Karlsson, A., Dugave, C., Rabiet, M.J., Boulay, F. and Dahlgren, C. 2001. The synthetic peptide Trp-Lys-Tyr-Met-Val-Met-NH₂ specifically activates neutrophils through FPRL1/lipoxin A₄ receptors and is an agonist for the orphan monocyte-expressed chemoattractant receptor FPRL2. *J. Biol. Chem.* 276: 21585-21593.
- Shen, W., Proost, P., Li, B., Gong, W., Le, Y., Sargeant, R., Murphy, P.M., Van Damme, J. and Wang, J.M. 2000. Activation of the chemotactic peptide receptor FPRL1 in monocytes phosphorylates the chemokine receptor CCR5 and attenuates cell responses to selected chemokines. *Biochem. Biophys. Res. Commun.* 272: 276-283.

CHROMOSOMAL LOCATION

Genetic locus: FPR3 (human) mapping to 19q13.33; Fpr3 (mouse) mapping to 17 A3.2.

SOURCE

FPR3 (H-75) is a rabbit polyclonal antibody raised against amino acids 141-215 mapping within an internal region of FPR3 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FPR3 (H-75) is recommended for detection of FPR3 and, to a lesser extent, other FPR family members of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 FPR3 siRNA (h): sc-45643, FPR3 siRNA (m): sc-40124, FPR3 shRNA Plasmid (h): sc-45643-SH, FPR3 shRNA Plasmid (m): sc-40124-SH, FPR3 shRNA (h) Lentiviral Particles: sc-45643-V and FPR3 shRNA (m) Lentiviral Particles: sc-40124-V.

Molecular Weight of FPR3: 40 kDa.

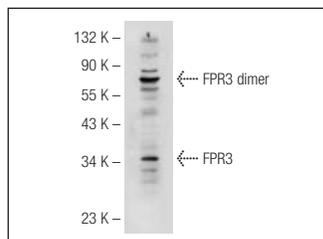
Molecular Weight of FPR3 dimer: 80 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FPR3 (H-75): sc-66900. Western blot analysis of FPR3 expression in NIH/3T3 whole cell lysate.

RESEARCH USE

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