

LTB4R2 (G-12): sc-34351

BACKGROUND

The P2Y receptor family consists of G protein-coupled receptors, which mediate the effects of extracellular nucleotides, primarily through the activation of phospholipase C. The P2Y receptors are important in the activation of leukocytes and platelets in response to inflammation or vascular damage. Leukotriene B4 receptor 1 (LTB4-R1), also designated P2Y purinoceptor 7, is a receptor for extracellular ATP, UTP and ADP. Through modulation of L-type calcium currents, LTB4-R1 is involved in the regulation of cardiac muscle contraction. It is also a receptor for leukotriene B4 (LTB4), a potent chemoattractant involved in inflammation and immune response. Leukotriene B4 receptor 2 (LTB4R2) is a ubiquitously expressed 358 amino acid receptor for LTB4. It is an integral membrane protein acting as a receptor for leukotrienes, is widely expressed and mediates chemotaxis of macrophages and granulocytes.

REFERENCES

1. Kamohara, M., et al. 2000. Molecular cloning and characterization of another leukotriene B4 receptor. *J. Biol. Chem.* 275: 27000-27004.
2. Wang, S., et al. 2000. A novel hepatointestinal leukotriene B4 receptor. Cloning and functional characterization. *J. Biol. Chem.* 275: 40686-40694.
3. Tryselius, Y., et al. 2000. Cloning and characterization of cDNA encoding a novel human leukotriene B4 receptor. *Biochem. Biophys. Res. Commun.* 274: 377-382.
4. Nilsson, N.E., et al. 2000. Genomic organization of the leukotriene B4 receptor locus of human chromosome 14. *Biochem. Biophys. Res. Commun.* 274: 383-388.
5. Kato, K., et al. 2000. Cell-specific transcriptional regulation of human leukotriene B4 receptor gene. *J. Exp. Med.* 192: 413-420.
6. Yokomizo, T., et al. 2000. A second leukotriene B4 receptor, BLT2. A new therapeutic target in inflammation and immunological disorders. *J. Exp. Med.* 192: 421-432.
7. Yokomizo, T., et al. 2001. Hydroxyeicosanoids bind to and activate the low affinity leukotriene B4 receptor, BLT2. *J. Biol. Chem.* 276: 12454-12459.

CHROMOSOMAL LOCATION

Genetic locus: LTB4R2 (human) mapping to 14q12; Ltb4r2 (mouse) mapping to 14 C3.

SOURCE

LTB4R2 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of LTB4R2 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.

RESEARCH USE

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

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-34351 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LTB4R2 (G-12) is recommended for detection of LTB4R2 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).

LTB4R2 (G-12) is also recommended for detection of LTB4R2 in additional species, including canine and bovine.

Suitable for use as control antibody for LTB4R2 siRNA (h): sc-45322, LTB4R2 siRNA (m): sc-45323, LTB4R2 shRNA Plasmid (h): sc-45322-SH, LTB4R2 shRNA Plasmid (m): sc-45323-SH, LTB4R2 shRNA (h) Lentiviral Particles: sc-45322-V and LTB4R2 shRNA (m) Lentiviral Particles: sc-45323-V.

Molecular Weight of LTB4R2: 42 kDa.

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.

PROTOCOLS

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