

# CysLT<sub>1</sub> Receptor (C-16): sc-31172

## BACKGROUND

Cysteinyl leukotriene (CysLTs) induce intracellular calcium mobilization through the binding of two distinct seven-transmembrane, G protein-coupled receptors, designated CysLT<sub>1</sub> and CysLT<sub>2</sub> Receptors, to induce potent broncho-constriction. Airway smooth muscle and macrophages express both receptor types, and additionally monocytes and eosinophils express CysLT<sub>1</sub> Receptor, while cardiac purkinje cells, adrenal medulla, peripheral blood leukocytes and brain also utilize CysLT<sub>2</sub> Receptor. The effects of the CysLT Receptors can be blocked by antagonists, indicating a therapeutic mechanism for the treatment of asthma and allergies.

## REFERENCES

1. Sarau, H.M., et al. 1999. Identification, molecular cloning, expression, and characterization of a cysteinyl leukotriene receptor. *Mol. Pharmacol.* 56: 657-663.
2. Lynch, K.R., et al. 1999. Characterization of the human cysteinyl leukotriene CysLT<sub>1</sub> receptor. *Nature* 399: 789-793.
3. Heise, C.E., et al. 2000. Characterization of the human cysteinyl leukotriene 2 receptor. *J. Biol. Chem.* 275: 30531-30536.
4. Sjostrom, M., et al. 2001. Human umbilical vein endothelial cells generate leukotriene C4 via microsomal glutathione S-transferase type 2 and express the CysLT<sub>1</sub> receptor. *Eur. J. Biochem.* 268: 2578-2586.
5. Maekawa, A., et al. 2001. Identification in mice of two isoforms of the cysteinyl leukotriene 1 receptor that result from alternative splicing. *Proc. Natl. Acad. Sci. USA* 98: 2256-2261.
6. Leff, A.R. 2001. Regulation of leukotrienes in the management of asthma: biology and clinical therapy. *Annu. Rev. Med.* 52: 1-14.

## CHROMOSOMAL LOCATION

Genetic locus: CYSLTR1 (human) mapping to Xq21.1; Cysltr1 (mouse) mapping to X D.

## SOURCE

CysLT<sub>1</sub> Receptor (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of CysLT<sub>1</sub> Receptor 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-27096 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

CysLT<sub>1</sub> Receptor (C-16) is recommended for detection of CysLT<sub>1</sub> Receptor of mouse, rat and human 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).

CysLT<sub>1</sub> Receptor (C-16) is also recommended for detection of CysLT<sub>1</sub> Receptor in additional species, including canine.

Suitable for use as control antibody for CysLT<sub>1</sub> Receptor siRNA (h): sc-43712, CysLT<sub>1</sub> Receptor siRNA (m): sc-142750, CysLT<sub>1</sub> Receptor shRNA Plasmid (h): sc-43712-SH, CysLT<sub>1</sub> Receptor shRNA Plasmid (m): sc-142750-SH, CysLT<sub>1</sub> Receptor shRNA (h) Lentiviral Particles: sc-43712-V and CysLT<sub>1</sub> Receptor shRNA (m) Lentiviral Particles: sc-142750-V.

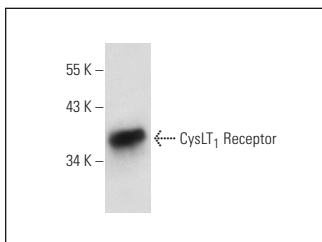
Molecular Weight of CysLT<sub>1</sub> Receptor: 43 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180.

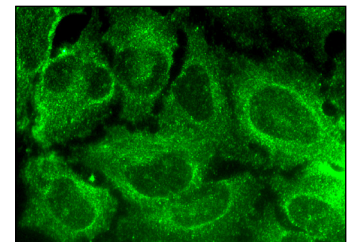
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



CysLT<sub>1</sub> Receptor (C-16): sc-31172. Western blot analysis of CysLT<sub>1</sub> Receptor expression in HUV-EC-C whole cell lysate.



CysLT<sub>1</sub> Receptor (C-16): sc-31172. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.