SANTA CRUZ BIOTECHNOLOGY, INC.

$CysLT_2$ Receptor (V-15): sc-27915

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cysteinyl leukotriene (CysLTs) induce intracellular calcium mobilization through the binding of two distinct seven-transmembrane, G protein-coupled receptors, designated $CysLT_1$ and $CysLT_2$ Receptors, to induce potent bronchoconstriction. Airway smooth muscle and macrophages express both receptor types, and additionally monocytes and eosinophils express $CysLT_1$ Receptor, while cardiac Purkinje cells, adrenal medulla, peripheral blood leukocytes and brain also utilize $CysLT_2$ 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 $CysLT_1$ 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 $CysLT_1$ 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: CYSLTR2 (human) mapping to 13q14.2.

SOURCE

$CysLT_2$ Receptor (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminus cytoplasmic domain of Cysteinyl leukotriene receptor 2 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-27915 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.

PROTOCOLS

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

APPLICATIONS

$CysLT_2$ Receptor (V-15) is recommended for detection of $CysLT_2$ Receptor of 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).

Suitable for use as control antibody for $CysLT_2$ Receptor siRNA (h): sc-43713, $CysLT_2$ Receptor shRNA Plasmid (h): sc-43713-SH and $CysLT_2$ Receptor shRNA (h) Lentiviral Particles: sc-43713-V.

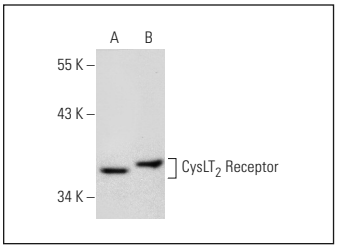
Molecular Weight of $CysLT_2$: 43 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or JAR cell lysate: sc-2276.

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.

DATA



$CysLT_2$ Receptor (V-15): sc-27915. Western blot analysis of $CysLT_2$ Receptor expression in HeLa (**A**) and JAR (**B**) whole cell lysates.

RESEARCH USE

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