PRODUCT INFORMATION

$CysLT_1$ Receptor Polyclonal FITC Antibody

Item No. 14713

Overview and Properties

Contents:	This vial contains 500 µl peptide affinity-purified, fluorescein-labeled polyclonal antibody.
Synonym:	Cysteinyl Leukotriene Receptor 1
Immunogen:	Synthetic peptide from the C-terminal region of $CysLT_1$ receptor
Species Reactivity:	(+) Human and mouse; other species not tested
Uniprot No.:	Q9Y271
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥2 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Application:	Flow cytometry; the recommended starting dilution is 20 µl/test. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Description

The cysteinyl leukotrienes (CysLTs; LTC_4, LTD_4, and LTE_4) contract airway and pulmonary vascular smooth muscle, increase vascular permeability, and stimulate mucus secretion, thereby playing a major role in asthma.[2-5] LTC_4, LTD_4, and LTE_4 mediate their actions *via* at least two receptors designated $CysLT_1$ and $CysLT_2$.[2] Cloning of the human $CysLT_1$ receptor reveals it is a 337 amino acid protein with a calculated molecular mass of 38,549.[1] The rank order of binding for leukotrienes to the cloned receptor, as determined using a radioligand binding assay, is LTD_4 >> LTC_4 = LTE_4 >> LTB_4.[1] The mRNA for the human $CysLT_1$ receptor is expressed in spleen and peripheral blood leukocytes with smaller amounts in lung, placenta, and small intestine. Immunohistochemical studies reveal the receptor is expressed on eosinophils, mast cells, macrophages, neutrophils, and vascular endothelial cells in the nasal mucosa.[6]

References

1. Lynch, K.R., O'Neill, G.P., Liu, Q., *et al.* Characterization of the human cysteinyl leukotriene $CysLT_1$ receptor. *Nature* **399**, 789-793 (1999).
2. Gorenne, I., Norel, X., and Brink, C. Cysteinyl leukotriene receptors in the human lung: What's new? *Trends Pharmacol. Sci.* **17**, 342-343 (1996).
3. Dahlén, S.-E., Hansson, G., Hedqvist, P., *et al.* Allergen challenge of lung tissue from asthmatics elicits bronchial contraction that correlates with the release of leukotrienes C_4, D_4, and E_4. *Proc. Natl. Acad. Sci. USA* **80**, 1712-1716 (1983).
4. Busse, W.W. The role of leukotrienes in asthma and allergic rhinitis. *Clin. Exp. Allergy* **26**, 868-879 (1996).
5. Hedqvist, P., Dahlén, S.-E., Gustafsson, L., *et al.* Biological profile of leukotrienes C_4 and D_4. *Acta Physiol. Scand.* **110**, 331-333 (1980).
6. Shirasaki,H., Kanaizumi,E., Watanabe,K., *et al.* Expression and localization of the cysteinyl leukotriene 1 receptor in human nasal mucosa. *Clin. Exp. Allergy* **32**, 1007-1012 (2002).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM