

PRODUCT INFORMATION

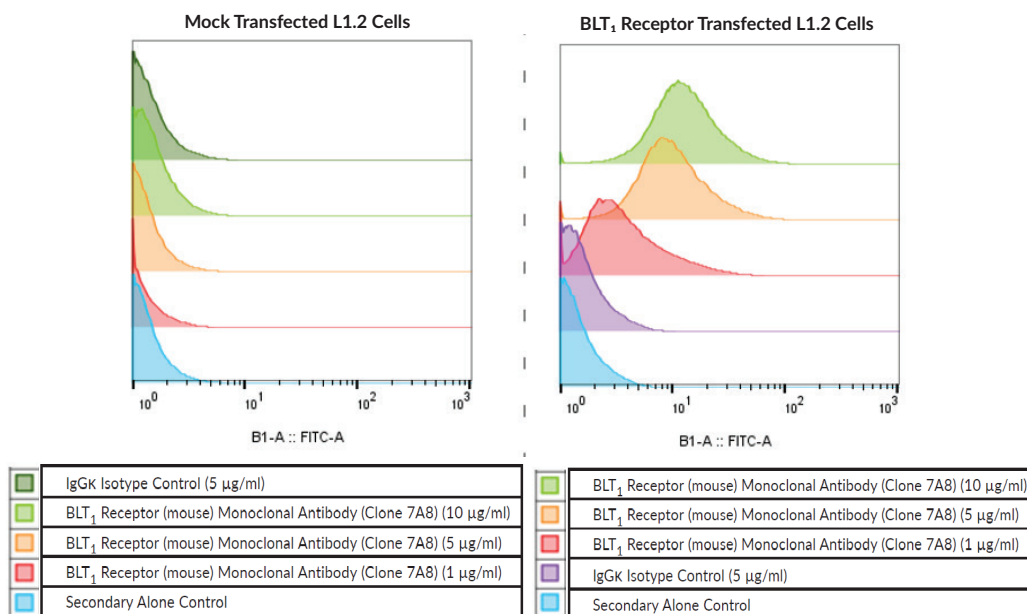


BLT₁ Receptor (mouse) Monoclonal Antibody (Clone 7A8) Item No. 30455

Overview and Properties

Contents: This vial contains 100 µg of protein G-purified monoclonal antibody
Synonyms: BLTR1, Leukotriene B₄ Receptor 1, LTB₄ Receptor 1
Immunogen: BLT₁ receptor-expressing cells
Cross Reactivity: (+) BLT₁
Species Reactivity: (+) Mouse; other species not tested
Uniprot No.: A7VJD3
Form: Liquid
Storage: -20°C (as supplied)
Stability: ≥3 years
Storage Buffer: PBS, pH 7.2, containing 50% glycerol and 0.02% sodium azide
Clone: 7A8
Host: Mouse
Isotype: IgG1κ
Application: Flow cytometry (FC); the recommended starting dilution is 1:100-200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Flow cytometric analysis of the BLT₁ receptor overexpressed in L1.2 cells. L1.2 cells were fixed with 3.7% paraformaldehyde and blocked with 1% FBS in 0.1% saponin. Cells were probed with the indicated amounts of BLT₁ Receptor (mouse) Monoclonal Antibody (Clone 7A8) followed by Cayman's Goat Anti-Mouse (IgG+IgM) FITC (Item No. 10006617).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

BLT₁ receptor is a high-affinity G protein-coupled receptor for leukotriene B₄ (LTB₄) with roles in the pathogenesis of various inflammatory and immune diseases.^{1,2} It is expressed in most immune cells, including neutrophils, macrophages, eosinophils, and T cells, as well as certain non-immune cells, such as endothelial cells, fibroblasts, and smooth muscle cells.¹ Binding of LTB₄ to BLT₁ during the onset of inflammation induces early recruitment and activation of neutrophils and inflammatory polarization of macrophages.^{1,3} BLT₁ activation also mediates effector T cell recruitment, providing a link between innate and adaptive immunity during T cell-mediated inflammation. Knockdown of *Ltbr41*, the gene encoding BLT₁, improves glucose tolerance and reduces hyperinsulinemia in a mouse model of high-fat diet-induced obesity.⁴ *Ltbr41* knockdown prevents joint immune cell infiltration and the development of arthritis in multiple mouse models of osteoarthritis and rheumatoid arthritis.⁵ Loss of *Ltbr41* also increases tumor burden and decreases survival in a mouse model of spontaneous colorectal tumor formation.⁶ Cayman's BLT₁ Receptor (mouse) Monoclonal Antibody (Clone 7AB) can be used for flow cytometry (FC).

References

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4. Li, P., Oh, D.Y., Bandyopadhyay, G., *et al.* LTB₄ promotes insulin resistance in obese mice by acting on macrophages, hepatocytes and myocytes. *Nat. Med.* **21(3)**, 239-247 (2015).
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