Human LIGHT/TNFSF14
Alexa Fluor® 647-conjugated Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2323C
Catalog Number: FAB6643R
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LIGHT/TNFSF14 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2323C
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human LIGHT/TNFSF14 Asp74-Val240 Accession # O43557
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10^6 cells	Human CD3+ T cells treated with PMA and Calcium Ionomycin

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Human LIGHT, also known as TNFSF14, is a type II membrane protein that is a member of the TNF superfamily. LIGHT is an acronym which stands for "is homologous to lymphotoxins, exhibits inducible expression, and competes with HSV glycoprotein D for HVEM, a receptor expressed by T lymphocytes". LIGHT has also been called HVEM-L and LT-γ. LIGHT is a 240 amino acid (aa) protein that contains a 37 aa cytoplasmic domain, a 22 aa transmembrane region, and a 181 aa extracellular domain. Similar to other TNF ligand family members, LIGHT is predicted to assemble as a homotrimer. LIGHT is produced by activated T cells and was first identified by its ability to compete with HSV glycoprotein D for HVEM binding. LIGHT has also been shown to bind to the lymphotoxin beta receptor (LTβR) and the decoy receptor (DcR3/TR6). LIGHT overexpression in tumor cells induces apoptosis, which can be enhanced by IFN-γ.

References:

1. Mauri, D.N. *et al.* (1998) Immunity **8**:21.
2. Zhai, Y. *et al.* (1998) J. Clin. Invest. **102**:1142.
3. Harrop, J.A. *et al.* (1998) J. Biol. Chem. **273**:27548.
4. Yu, K-Y. *et al.* (1999) J. Biol. Chem. **274**:13733.

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