Mouse LIGHT/TNFSF14 Alexa Fluor® 594-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 261639
Catalog Number: FAB1794T
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse LIGHT in direct ELISAs and Western blots. In Western blots, this antibody shows less than 10% cross-reactivity with recombinant mouse (rm) EDA, rmTRAIL, rmTRANCE, rmTWEAK, and rhVEGI but does not cross-react rm4-1BB Ligand, rhAPRIL, rmBAFF,
Source	Monoclonal Rat IgG_{2A} Clone # 261639
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse LIGHT Asp72-Val239 Accession # Q9QYH9
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

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

LIGHT (**l**ymphotoxin-like, exhibits **i**nducible expression, and competes with HSV **g**lycoprotein D for **H**VEM, a receptor expressed by **T** lymphocytes) is a member of the TNF superfamily and is designated TNFSF14. The gene for mouse LIGHT encodes a 239 amino acid residue (aa) type II transmembrane glycoprotein that contains a 37 aa N-terminal cytoplasmic domain, a 21 aa transmembrane region, and a 181 aa extracellular domain. A soluble form of mouse LIGHT is generated from the membrane form by proteolytic processing. Similar to other TNF ligand family members, LIGHT is assembled as a homotrimer. Mouse and human LIGHT share 71% aa sequence identity. LIGHT is expressed by activated lymphocytes, natural killer cells, immature dendritic cells, monocytes and granulocytes. Mouse LIGHT binds and signals via two distinct TNF receptor superfamily members, including the herpes virus entry mediator (HVEM/TNFRSF14) and the lymphotoxin β receptor (LTβ R/TNFRSF3). In humans, LIGHT also binds the soluble human decoy receptor 3 (DcR3/TNFRSF6B). Signaling from LTβ R, which also binds LTαβ, induces apoptosis and the production of various cytokines. LIGHT-LTβ R signaling also plays a role in mesenteric lymph node organogenesis, and restoration of secondary lymphoid structure and function. Signaling from HVEM, which also binds LTα, co-stimulates T-helper cell type 1 (TH1) immune responses, enhances Cytotoxic T Lymphocytes (CTL)-mediated tumor immunity, and regulates allogeneic T cell activation and allograft rejection. Blockade of LIGHT-HVEM signaling has been shown to prevent graft versus host disease.

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