

Mouse anti-Human LIGHT Monoclonal Antibody | anti-LIGHT antibody

LIGHT Antibody [7B9F12]

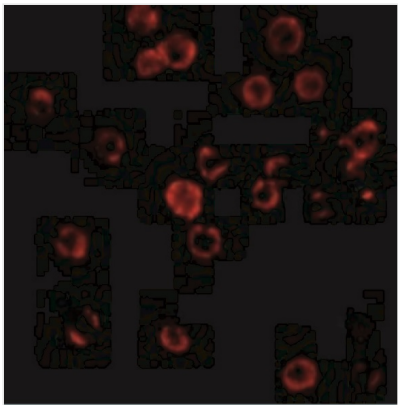
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA11008	Mouse	Human	ELISA, Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

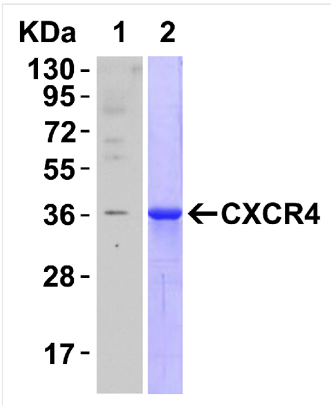
LIGHT; Monoclonal Antibody; LIGHT Antibody [7B9F12]; TNFSF14; LTg; CD258; HVEM; HVEM ligand; TNF superfamily member 14; anti-LIGHT antibody

PRODUCT SPECIFICATIONS

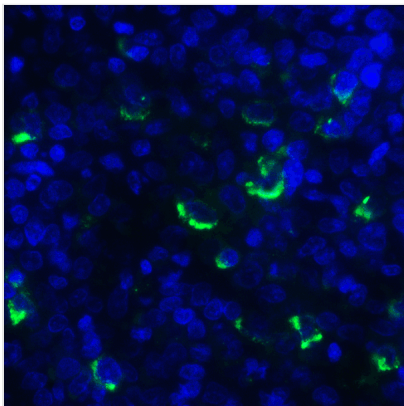
Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	7B9F12
Purity/Purification	Protein A purified
Form/Format	Liquid Supplied in PBS containing 0.02% sodium azide.
Concentration	1 mg/mL (varies by lot)
Sequence Length	240
Applicable Applications for anti-LIGHT antibody	ELISA, WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)
Application Notes	WB at 0.5-1 ug/mL IHC starting at 2-5 ug/mL IF start at 20 ug/mL. Antibody validated: Western Blot in human samples; Immunohistochemistry in human samples; Immunocytochemistry in human samples; Immunofluorescence in human samples and Flow Cytometry in mouse samples. All other applications and species not yet tested.
Immunogen	LIGHT antibody was raised against the extracellular domain of human LIGHT.
Conjugate	Unconjugated
Preparation and Storage	Store at 4 degree C for three months and -20 degree C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.



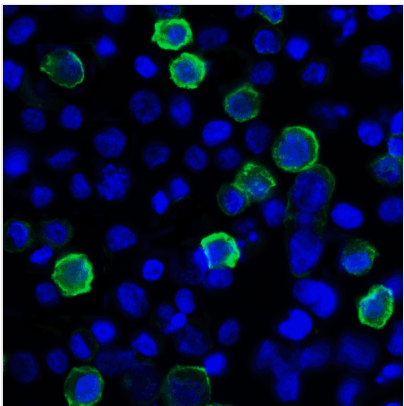
FCM (Flow Cytometry)
Flow cytometry analysis of LIGHT overexpressing HEK293 cells using LIGHT antibody and control mouse IgG antibody at 10 μ g/mL. Blue: Untransfected HEK293 cells. Yellow: LIGHT overexpressing HEK293 cells.



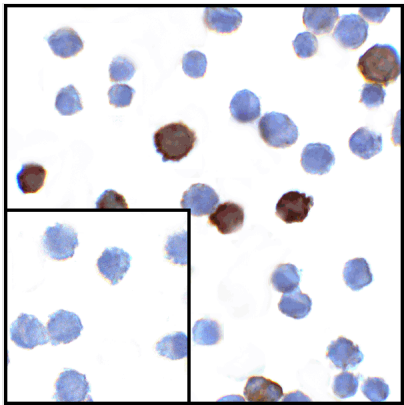
IHC (Immunohistochemistry)
Immunohistochemistry of LIGHT in human lymphoma tissue with LIGHT antibody at 5 μ g/mL.



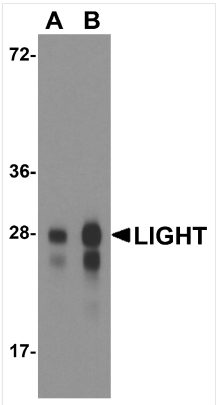
IF (Immunofluorescence)
Immunofluorescence of LIGHT in human lymphoma tissue with LIGHT antibody at 20 μ g/mL. Green: LIGHT Antibody [7B9F12] Blue: DAPI staining



IF (Immunofluorescence)
Immunofluorescence of LIGHT in transfected HEK293 cells with LIGHT antibody at 2 μ g/mL. Green: LIGHT Antibody [7B9F12] Blue: DAPI staining



ICC (Immunocytochemistry)
Immunocytochemistry of LIGHT in transfected HEK293 cells with LIGHT antibody at 1 μ g/mL. Lower left: Immunocytochemistry in transfected HEK293 cells with control mouse IgG antibody at 1 μ g/mL.



WB (Western Blot)
Western blot analysis of LIGHT in overexpressing HEK293 cells with LIGHT antibody at 0.5 and 1 μ g/mL

ADDITIONAL INFORMATION

Related Product Information for anti-LIGHT antibody	LIGHT, also known as Tumor Necrosis Factor Superfamily member 14 (TNFSF14), is a co-stimulatory molecule that can regulate T-cell activation (1) and has recently been identified as an immune checkpoint protein. LIGHT binds to two different receptors, Herpes Virus Entry Mediator (HVEM) and Lymphotoxin beta Receptor (LTbetaR). While LIGHT binding to HVEM delivers a co-stimulatory signal to T cells (1), LIGHT binding to LTbetaR is critical for the formation of lymphoid structures which can stimulate T cell infiltration and activation of a tumor microenvironment, leading to rapid T cell-mediated tissue destruction (2). It has been shown that targeted delivery of LIGHT to tumors, thereby causing the T cell infiltration of the tumor, can enhance the response of the PD-1/PD-L1 checkpoint blockade anti-cancer therapy (3), suggesting that LIGHT may become a potent tool in anti-cancer treatment.
Product Categories/Family for anti-LIGHT antibody	Immunology
References	Wang Y, Zhu M, Miller M, et al. Immunoregulation by tumor necrosis factor superfamily member LIGHT. Immunological Reviews 2009; 229:232-43. Lee Y, Chin RK, Christiansen P, et al. Recruitment and activation of naive T cells in the islets by lymphotoxin beta receptor-dependent tertiary lymphoid structure. Immunity 2006; 25:499-509. Tang H, Wang Y, Chlewicki LK, et al. Facilitating T cell infiltration in tumor microenvironment overcomes resistance to PD-L1 blockade. Cancer Cell 2016; 29:285-296.

NCBI AND UNIPROT INFORMATION

NCBI GI #	25952144
NCBI GeneID	8740
NCBI Accession #	NP_003798
NCBI GenBank Nucleotide #	NM_003807.4
UniProt Accession #	O43557 ; O75476 ; Q6FHA1 ; Q8WVF8 ; Q96LD2 ; A8K7M2 ; C9J5H4
Molecular Weight	Predicted: 26 kDa
NCBI Official Full Name	tumor necrosis factor ligand superfamily member 14 isoform 1
NCBI Official Synonym Full Names	TNF superfamily member 14
NCBI Official Symbol	TNFSF14
NCBI Official Synonym Symbols	LTg; CD258; HVEM; LIGHT
NCBI Protein Information	tumor necrosis factor ligand superfamily member 14
UniProt Protein Name	Tumor necrosis factor ligand superfamily member 14
UniProt Gene Name	TNFSF14
UniProt Synonym Gene Names	HVEM; LIGHT; HVEM-L; Herpesvirus entry mediator ligand

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/light-antibody-clone-7b9f12-western-blot-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-elisa/11008>