

## Product datasheet for **TA355115**

### LIGHT (TNFSF14) Mouse Monoclonal Antibody [Clone ID: 8D4]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	8D4
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB start at 0.5 - 1 ug/mL. IHC start at 2 - 5 ug/mL. IF start at 20 ug/mL.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	LIGHT antibody was raised against the extracellular domain of human LIGHT.
Formulation:	LIGHT Antibody is supplied in PBS containing 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	LIGHT Antibody is supplied as protein A purified IgG2b.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	Predicted: 26 kDa.
Gene Name:	tumor necrosis factor superfamily member 14
Database Link:	<a href="#">NP_003798</a> <a href="#">Entrez Gene 8740 Human</a> <a href="#">O43557</a>



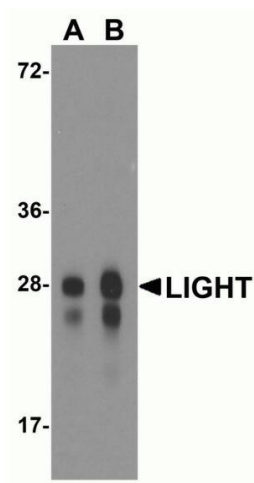
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**Background:**

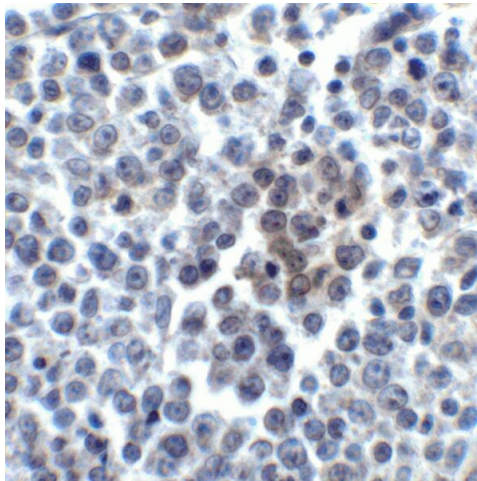
LIGHT Antibody: LIGHT, also known as Tumor Necrosis Factor Superfamily member 14 (TNFSF14), is a co-stimulatory molecule that can regulate T-cell activation and has recently been identified as an immune checkpoint protein. LIGHT binds to two different receptors, Herpes Virus Entry Mediator (HVEM) and Lymphotoxin beta Receptor (LTβR). While LIGHT binding to HVEM delivers a co-stimulatory signal to T cells, LIGHT binding to LTβR 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. 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, suggesting that LIGHT may become a potent tool in anti-cancer treatment.

**Synonyms:**

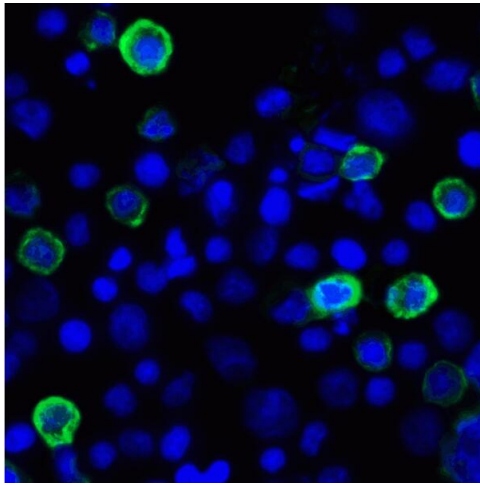
CD258; HVEM-L; HVEM-L; LIGHT; LTg; TR2

**Product images:**

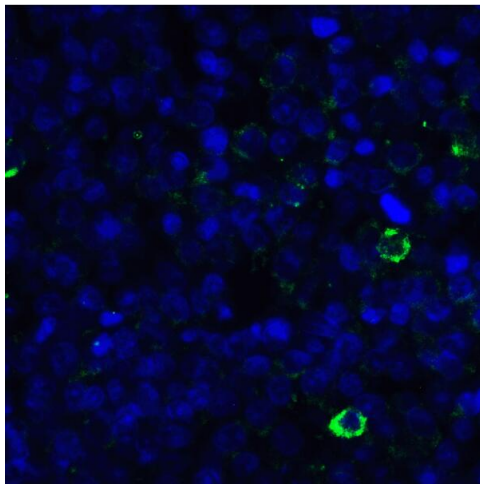
Western blot analysis of LIGHT in overexpressing HEK293 cells with LIGHT antibody at 0.5 and 1 ug/ml



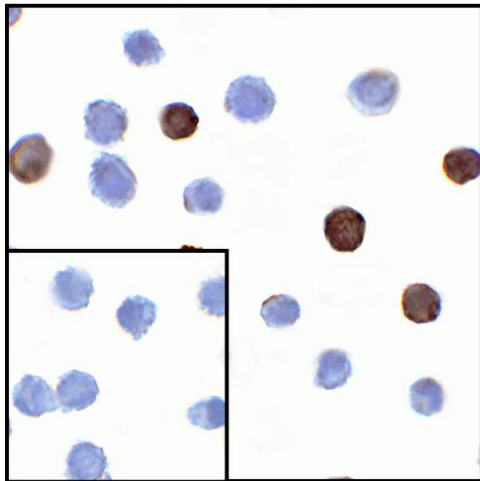
Immunohistochemistry of LIGHT in human lymphoma tissue with LIGHT antibody at 5 ug/mL.



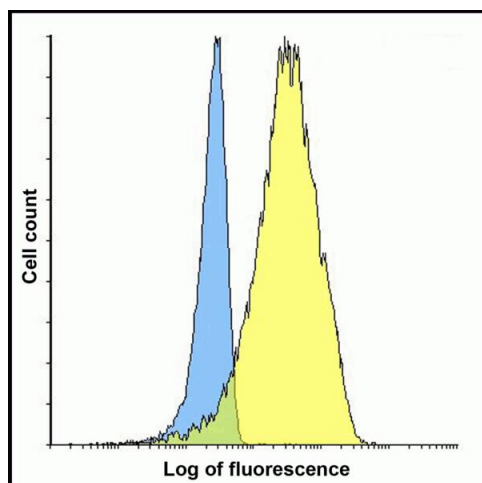
Immunofluorescence of LIGHT in transfected HEK293 cells with LIGHT antibody at 2 ug/mL.



Immunofluorescence of LIGHT in human lymphoma tissue with LIGHT antibody at 20 ug/mL.



Immunocytochemistry of LIGHT in transfected HEK293 cells with LIGHT antibody at 1 ug/mL. Lower left: Immunocytochemistry in transfected HEK293 cells with control mouse IgG antibody at 1 ug/mL.



Flow cytometry analysis of LIGHT overexpressing HEK293 cells using LIGHT antibody and control mouse IgG antibody at 10  $\mu$ g/ml. Blue: Untransfected HEK293 cells. Yellow: LIGHT overexpressing HEK293 cells.