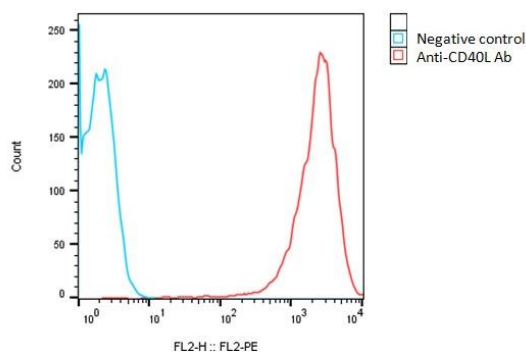


**SPECIFICATIONS**

<b>Catalog Number</b>	C3056
<b>Cell Line Name</b>	Human CD40L-CHO-K1 stable cell line
<b>Accession Number</b>	P29965.1
<b>Host Cell</b>	Adherent CHO-K1
<b>Quantity</b>	Two vials of frozen cells (2x10 <sup>6</sup> per vial)
<b>Culture Medium</b>	DMEM with 10% FBS, 4µg/ml puromycin
<b>Freezing Medium</b>	90% FBS and 10% DMSO
<b>Storage</b>	Liquid nitrogen

**DATA**

Detection of human CD40L expression on human CD40L-CHO-K1 stable cells using PE-anti-human CD40L (BioLegend, Cat. #310805).


**BACKGROUND**

CD40 ligand, CD40L (also known as CD154, TRAP or gp39), is a 261 amino acid type II transmembrane glycoprotein belonging to the TNF family, CD40L is expressed predominantly on activated CD4<sup>+</sup> T lymphocytes, and is also found in other types of cells, like NK cells, mast cells, basophils and eosinophils. Human CD40L shares 78% amino acid identity with its murine counterpart. The receptor of CD40L is CD40, a type I transmembrane glycoprotein belonging to the TNF receptor family. CD40 is expressed on B lymphocytes, monocytes, dendritic cells and thymic epithelium. Although all monomeric, dimeric and trimeric forms of soluble CD40L can bind to CD40, the trimeric form of soluble CD40L has the most potent biological activity through oligomerization of cell surface CD40, a common feature of TNF receptor family members. CD40L mediates a range of activities on B cells including induction of activation-associated surface antigen, entry into cell cycle, isotype switching and Ig secretion and memory generation. CD40-CD40L interaction also plays important roles in monocyte activation and dendritic cell maturation.

**References**

- Hollenbaugh, D., et al. The human T cell antigen gp39, a member of the TNF gene family, is a ligand for the CD40 receptor: expression of a soluble form of gp39 with B cell co-stimulatory activity. *EMBO J.* **11**: 4313-4321, 1992.
- Graf, D., et al. Cloning of TRAP, a ligand for CD40 on human T cells. *Europ. J. Immunol.* **22**: 3191-3194, 1992.
- Gauchat, J.-F., et al. Human CD40-ligand: molecular cloning, cellular distribution and regulation of expression by factors controlling IgE production. *FEBS Lett.* **315**: 259-266, 1993.
- Straw, A. D., MacDonald, A. S., Denkers, E. Y., Pearce, E. J. CD154 plays a central role in regulating dendritic cell activation during infections that induce Th1 or Th2 responses. *J. Immunol.* **170**:727-734, 2003.

Disclaimer: For research use only. Not for use in humans.