

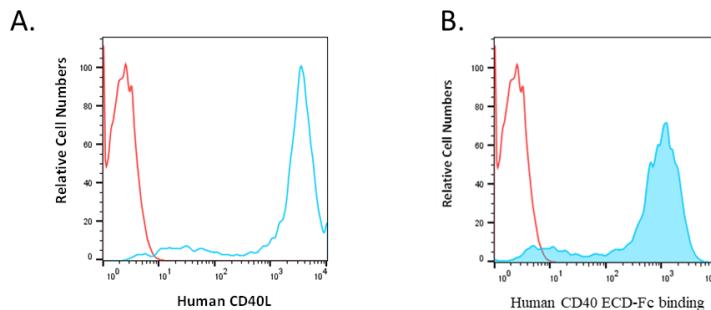
**SPECIFICATIONS**

<b>Catalog Number</b>	C1004
<b>Cell Line Name</b>	Human CD40 ligand (CD40L)-EL4 stable cell pool
<b>Accession Number</b>	P29965.1
<b>Host Cell</b>	Mouse EL4
<b>Quantity</b>	Two vials of frozen cells (5x10 <sup>6</sup> per vial)
<b>Culture Medium</b>	RPMI with 10% FBS and 1 µg/ml puromycin
<b>Freezing Medium</b>	90% FBS and 10% DMSO
<b>Storage</b>	Liquid nitrogen

**DATA**

A. Detection of human CD40L expression on human CD40L-EL-4 stable cells using a mouse monoclonal antibody specific for human CD40L (BioLegendCat. #310805);

B. Detection of human CD40 binding to human CD40L-EL-4 stable cells using a human CD40 ECD-Fc protein followed by staining with PE-anti-human IgG.


**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 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**

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