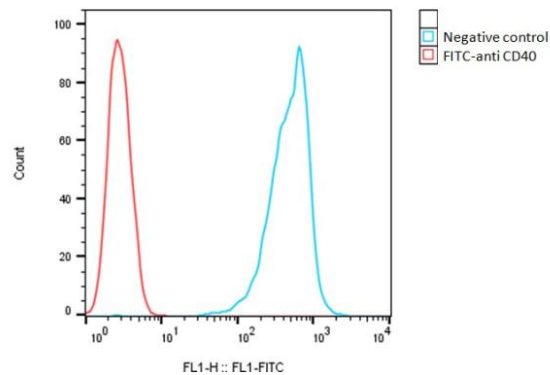


**SPECIFICATIONS**

<b>Catalog Number</b>	C3066
<b>Cell Line Name</b>	Human CD40-CHO-K1 stable cell line
<b>Accession Number</b>	NP_001241.1
<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 CD40 expression on human CD40-CHO-K1 stable cells using a monoclonal antibody specific for human CD40 (BioLegend, Cat. #334306)


**BACKGROUND**

CD40 is a cell surface glycoprotein and a member of the tumor necrosis factor receptor (TNFR) superfamily. It is primarily expressed on B cells, dendritic cells, and antigen-presenting cells, but it can also be found on other immune and non-immune cells. The primary function of CD40 is to facilitate communication and collaboration between different components of the immune system. CD40 serves as a receptor for CD40 ligand (CD40L or CD154), which is primarily expressed on activated T cells. When CD40 on antigen-presenting cells (APCs) interacts with CD40L on T cells, it initiates a series of signaling events essential for various immune responses such as B cell activation, dendritic cell function, isotype switching in B cells and memory T cell development. Aberrant CD40 expression has been observed in various cancers. Some cancers, such as B-cell lymphomas and multiple myeloma, can overexpress CD40, contributing to tumor cell survival and immune evasion. Targeting CD40 in these cancers with agonistic antibodies or CD40L-based therapies has shown promise in preclinical and clinical studies.

**References**

- Elgueta R, Benson MJ, de Vries VC, Wasiuk A, Guo Y, Noelle RJ. "Molecular mechanism and function of CD40/CD40L engagement in the immune system." *Immunol Rev.* **229**(1):152-72. 2009.
- Vonderheide RH. "CD40 Agonist Antibodies in Cancer Immunotherapy." *Annu Rev Med.* **69**:243-254. 2018.

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