

## BACKGROUND

CD40L (also called CD154) is a member of the tumor necrosis factor family of ligands, plays a major role in immune responses via its receptor, CD40.<sup>1</sup> CD40L is mainly expressed on activated CD4+ T lymphocytes. Recently, CD40L has been detected on the surfaces of activated platelets and shown to activate endothelium. It was also shown that HUVEC cell express CD40L.<sup>2</sup> Whereas CD40, a member of the tumor necrosis factor receptor (TNFR) family, has been found on the surface of B lymphocytes, monocytes, hematopoietic progenitors, dendritic cells (DCs), endothelial cells, epithelial cells and so on. CD40L-CD40 interaction plays important role in control of thymus-dependent humoral immunity and cell mediated immune responses. CD40L is the most crucial molecule for activating antigen-presenting cells (APCs) and thereby initiating the immune response.<sup>3</sup> Deletion or mutations of the CD40L molecule leads to severe immunodeficiency, in both man and mouse, characterized by hypogammaglobulinemia as well as T cell defects in cell mediated immunity.<sup>4</sup> Moreover, blockade of the CD40L/CD40 pathway by antibodies to CD40L has been used, in experimental animals,<sup>5</sup> to effectively prevent and treat a variety of autoimmune diseases as well as allograft rejection without inducing generalized immune suppression.

### References:

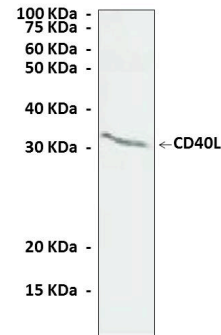
1. Daoussis D et al.: Clin. Diagn. Lab. Immunol. 11:635-641, 2004.
2. Mendez-Cruz AR et al.: Immunol. Lett. 111:116-123, 2007.
3. Boisvert J et al.: J. Immunol. 173: 3647-3652, 2004.
4. Weller S et al.: Proc. Natl. Acad. Sci. USA 98:1166-1170, 2001.
5. Lutgens E et al.: Proc. Natl. Acad. Sci. USA 97:7564-7469, 2000.

## APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	1:50
IHC	1:100
ICC	n/d
FACS	n/d

\*Optimal dilutions must be determined by end user.

## QUALITY CONTROL DATA



Western Blot detection of endogenous CD40L protein from Human Umbilical Vein Endothelial Cell, (HUVEC) lysate using CD40L Antibody.

## TECHNICAL INFORMATION

### Source:

CD40L Antibody is a rabbit polyclonal antibody raised against human CD40L carboxyl-terminal sequence.

### Specificity and Sensitivity:

This polyclonal antibody detects endogenous levels of CD40L proteins in normal primary cell lysates.

**Storage Buffer:** PBS and 30% glycerol

### Storage:

Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

