



11-781-C025

Monoclonal Antibody to CD154 / CD40L Purified Antibody (0.025 mg)

Clone:	24-31
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody 24-31 detects CD154 / CD40L (CD40-ligand), a 39 kDa cell surface type II glycoprotein expressed predominantly on activated CD4+ lymphocytes.
Regulatory Status:	RUO
Immunogen:	human CD154 fusion protein
Species Reactivity:	Human, Non-Human Primates
Application:	Flow Cytometry Immunocytochemistry Functional Application blocking
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified by protein-A affinity chromatography
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD154 / CD40L (CD40 ligand) is a member of the tumor necrosis factor family, and is expressed primarily on activated CD4+ lymphocytes, but also on mast cells, basophils, eosinophils and human dendritic cells. Its counter-receptor CD40 is expressed on antigen presenting cells, including dendritic cells, macrophages, and B cells, and also on fibroblasts. Triggering of CD40 by CD40L causes maturation of dendritic cells and upregulation of antigen presentation in functions of the MHC and costimulatory molecules. CD40L also functions as a direct stimulating factor for T cells. CD40L plays also roles e.g. in antibody class switching and modulation of apoptosis in the germinal center.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Kum WW, Hung RW, Cameron SB, Chow AW: Temporal sequence and functional implications of V beta-specific T cell receptor down-regulation and costimulatory molecule expression following in vitro stimulation with the staphylococcal superantigen Toxic shock syndrome toxin-1. *J Infect Dis.* 2002 Feb 15;185(4):555-60
- *Fernandes MS, Gomes EM, Butcher LD, Hernandez-Alcoceba R, Chang D, Kansopon J, Newman J, Stone MJ, Tong AW: Growth inhibition of human multiple myeloma cells by an oncolytic adenovirus carrying the CD40 ligand transgene. *Clin Cancer Res.* 2009 Aug 1;15(15):4847-56.
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- *Bernier B, Wolf G, Hummel KM, Müller GA, Reuss-Borst MA: Increased expression of CD40 ligand (CD154) on CD4+ T cells as a marker of disease activity in rheumatoid arthritis. *Ann Rheum Dis.* 2000 Mar;59(3):190-5.
- *Brams P, Black A, Padlan EA, Hariharan K, Leonard J, Chambers-Slater K, Noelle RJ, Newman R: A humanized anti-human CD154 monoclonal antibody blocks CD154-CD40 mediated human B cell activation. *Int Immunopharmacol.* 2001 Feb;1(2):277-94.

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