



Antibodies

1P-781-T100

## Monoclonal Antibody to CD154 / CD40L Phycoerythrin (PE) conjugated (100 tests)

<b>Clone:</b>	24-31
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	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.
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	human CD154 fusion protein
<b>Species Reactivity:</b>	Human, Non-Human Primates
<b>Preparation:</b>	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
<b>Storage Buffer:</b>	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
<b>Storage / Stability:</b>	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	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
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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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