

## Anti-Human CD154-168Er

**Catalog #:** 3168006B

**Package Size:** 100 tests

**Storage:** Store product at 4°C. Do not freeze.

**Cross Reactivity:** Cynomolgus Monkey, Rhesus

**Clone:** 24-31

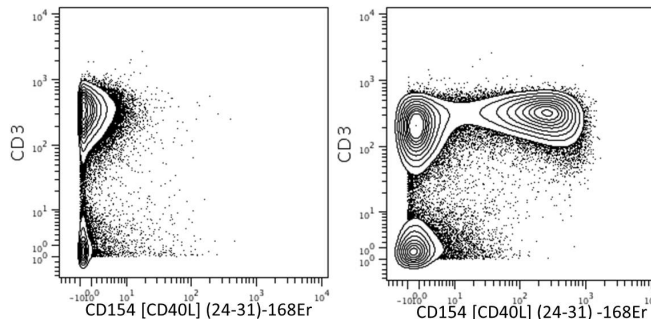
**Isotype:** Mouse IgG1

**Formulation:** Antibody stabilizer with 0.05% Sodium Azide

### Technical Information

**Validation:** Each lot of conjugated antibody is quality control tested by CyTOF® analysis of stained cells using the appropriate positive and negative cell staining and/or activation controls.

**Recommended Usage:** The suggested use is 1 µl for up to 3 X 10<sup>6</sup> live cells in 100 µl. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



Human PBMCs were incubated for 6 hours in media alone (left) or with PMA and ionomycin (right) in the presence of monensin and brefeldin A. Cells were then fixed, permeabilized, and stained with 170Er-anti-CD3 (UCHT1) and 168Er-anti-CD154 [CD40L] (24-31). Lymphocytes are displayed in the analysis.

### Description

CD154, also known as CD40 ligand (CD40L), is a 39 kDa type II membrane glycoprotein of the TNF family. It has been reported that CD154 binding with its ligand, CD40, is required for the proteolysis of membrane-bound CD154 and the subsequent release of soluble CD154 (sCD154) by activated platelets. Soluble CD154 is an 18 kDa fragment comprised of residues 113–261 of the membrane-bound CD154 molecule and remains a functional trimer retaining its ability to bind receptors. The CD154 homotrimer is nonconstitutively expressed on different cell types, including activated T lymphocytes, basophils, eosinophils, monocytes, macrophages, natural killer cells, B lymphocytes, platelets, dendritic cells, as well as endothelial, smooth muscle, and epithelial cells. Accumulating evidence now indicates that CD154 can bind to receptors other than CD40, namely, the integrins  $\alpha 1 \beta 3$ ,  $\alpha 5 \beta 1$ , and  $\alpha M \beta 2$ .

### References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. *Analytical Chemistry* 81:6813-6822, 2009.

Ornatsky, O. I., et al. Highly multiparametric analysis by mass cytometry. *J Immunol Methods* 361 (1-2):1-20, 2010.

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