

CD40LG protein-coupled magnetic MicroBeads

Cat. No. CD40LG-394M Lot. No. (See product label)

SPECIFICATION

Species Human

Capacity for 1×10^9 total cells

Background

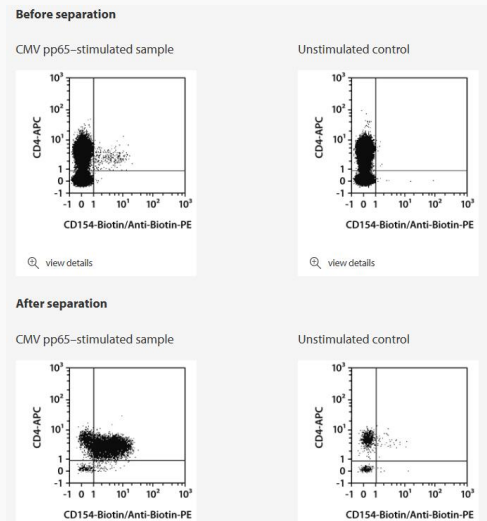
The CD154 antibody specifically recognizes the human CD154 antigen, a 39 kDa transmembrane glycoprotein also known as CD40L, gp39, T-BAM, TRAP, or Ly-62. CD154 is transiently up-regulated on activated CD4⁺ T cells and plays an important role as a costimulatory molecule in T cell/antigen-presenting cell interactions through ligation of CD40. Due to its transient expression within hours after activation, CD154 can be used as a marker for activated antigen-specific CD4⁺ T cells¹. Adding a CD40 blocking-antibody to the cell suspension during stimulation prevents down-regulation of CD154 expression induced by interaction with CD40 expressed on antigen-presenting cells.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Analysis



CD154+ T cells were isolated from human PBMCs of a CMV+ donor using the CD154 MicroBead Kit, two MS Columns, and a MiniMACS Separator. PBMCs were stimulated for 16 hours with PepTivator CMV pp65, a CD40 blocking-antibody was added during the stimulation to prevent down-regulation of CD154. Subsequently, CD154+ cells were separated using the CD154 MicroBead Kit. Cells were fluorescently stained with Anti-Biotin-PE and CD4 (VIT4)-APC (# 130-092-374) to detect CD154+ cells. Cell debris and dead cells were excluded from the analysis based on scatter signals and propidium iodide fluorescence.

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