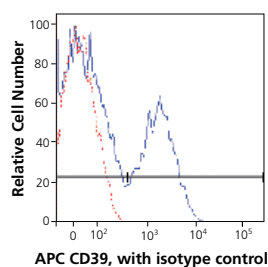


Human CD39: 定義調節性T細胞新幫手



最近研究報告指出，不論是在human或是Mouse，CD4+FoxP3+ 調節性T細胞同時也會表現CD39表面分子，因此，將CD39，CD25，CD127等重要marker列入實驗考量，將更能清楚定義CD4+調節性T細胞。

Figure 2. Analysis of human CD39 expression in whole blood.

Whole blood samples were stained at room temperature in the dark for 20 minutes with FITC CD4 clone RPA-T4 (Cat. No. 555346), PE-Cy7 CD25 clone M-A251 (Cat. No. 557741), PE CD127 clone hIL-7R-M21 (Cat. No. 557938), and APC CD39 clone TÙ66 (Cat. No. 560239). The cells were then lysed and washed twice in 1% FBS wash buffer, and samples were run on a BD FACSCanto™ system.

Description	Clone	Isotype	Size	Cat. No.
BD Pharmingen PE Mouse Anti-Human CD39	TÙ66	Mouse IgG _{2b} κ	100 tests	555464
BD Pharmingen APC Mouse Anti-Human CD39	TÙ66	Mouse IgG _{2b} κ	100 tests	560239

Human Regulatory T Cell Cocktail (CD4/CD25/CD127) :

活捉調節性T細胞最佳組合

近年來，FoxP3的發現，帶動CD4+CD25+FoxP3+調節性T細胞的研究熱潮，然而，由於FoxP3為細胞內分子，細胞需要經過固定打洞的步驟，才能使針對FoxP3抗體進入細胞內染色。這樣的細胞經過分選後，為死細胞，並不能在加以培養研究。最近，報導指出，CD4+CD25+CD127-調節性T細胞，FoxP3的表現很強，利用這樣針對細胞表面組合，研究人員可以分選出活的調節性T細胞囉

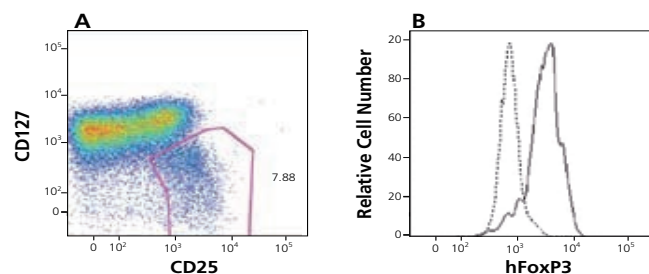
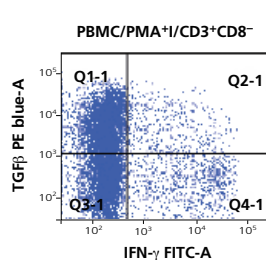


Figure 3. Three-color analysis of the expression of CD4, CD25, and CD127 on peripheral blood mononuclear cells (PBMCs).

PBMCs were stained with either an Isotype Control (Cat. No. 557872/555909, data not shown) or Human Regulatory T Cell Cocktail (Cat. No. 560249). The PBMCs were then fixed, lysed, and permeabilized using the BD Pharmingen Human FoxP3 Buffer Set (Cat. No. 560098) and stained with PE conjugated anti-human FoxP3 monoclonal antibody (Cat. No. 560082). During data analysis, lymphocytes were identified by light scatter profile and CD4 positive expression. **A)** Data representing the CD25 and CD127 expression profile of the CD4 positive cells. **B)** Data showing hFoxP3 expression on CD127^{low}/CD25^{high} Tregs (solid line) and other T cells (dashed line). Flow cytometry was performed on a BD FACSCanto™ system.

Description	Clone	Isotype	Size	Cat. No.
BD Pharmingen™ Human Regulatory T cell cocktail:			100 tests	560249
CD4 FITC	SK3	Mouse IgG1, κ		
CD25 PE-Cy7	2A3	Mouse IgG1, κ		
CD127 Alexa Fluor® 647	hIL-7R-M21	Mouse IgG1, κ		

Human TGF-B1: 研究Adaptive Treg 細胞最新最有利的工具



調節性T細胞 在免疫調控機制中，扮演了一個相當重要的角色，其中的CD4+ CD25+ 調節性T 細胞可防止自體免疫疾病與器官排斥反應以及維持自體耐受性(self-tolerance)，透過分泌免疫抑制性細胞激素(TGF-β與IL-10)的方式，對致病性T細胞的產生抑制作用。

Figure 1. TGF-β expression in activated human PBMCs.

Human PBMCs were activated with PMA and ionomycin, in the presence of Monensin and Brefeldin A (BFA) for 24 hours at 37°C. Activated cells were processed by fixation and permeabilization followed by staining with FITC-conjugated IFN-γ (Cat. No. 554551) and PE-conjugated TGF-β (Cat. No. 560227) monoclonal antibodies.

Description	Clone	Isotype	Size	Cat. No.
BD Pharmingen PE Mouse anti-Human TGF-β	TB21	Mouse IgG ₁ κ	100 tests	560227

更多調節性T細胞資訊 請上bdbiosciences.com/treg
http://www.unimed.com.tw 2009.APRIL - JUNE Q2

Cat. No.	Name
560131	Hu FoxP3 Staining Kit - Alexa Fluor 488, FoxP3, CD4, CD25
560132	HuFoxP3 Staining Kit - Alexa Fluor 647, FoxP3, CD4, CD25
560133	Hu FoxP3 Staining Kit - PE, FoxP3, CD4, CD25
560414	Ms Foxp3 PE
560407	Ms Foxp3 Alexa Fluor® 488
560402	Ms Foxp3 Alexa Fluor® 647
560082	Hu FoxP3 PE
560407	Ms Foxp3 Alexa Fluor® 488
560402	Ms Foxp3 Alexa Fluor® 647
560098	Human FoxP3 Buffer Set
560409	MS Foxp3 Buffer Set