

BD

雷射激發專一性螢光抗體

Next-generation laser-specific
flow cytometry research reagents



拒絕 Cross-Laser 激發帶來的干擾

Horizon™ Real Fluorochromes Antibody

RealRed™

RealViolet™

RealYellow™

RealBlue™





Horizon™ Real Fluorochromes

讓您花最少的時間優化 panel，更多的時間探索科學

Bright and Clean

- 專一性雷射激發，減少漏光到其他螢光通道
- 高亮度螢光可以支持低表達的 markers
- 減低背景值



Versatile Applications

- 更容易設計多色 panel 及擴展螢光配色數
- 在光譜型流式細胞儀，更可兼容現行螢光染劑，例如 PE 和 RY586 可同時使用



Optimized for Spectral

- 專為光譜型流式細胞儀 / 分選儀的高參數 panel 設計的螢光試劑



Stable Performance

- 對光照的穩定性佳
- 批次間一致性



Broadly Compatible

- 相容各種常見的固定液和打洞試劑



BD Horizon™ Real Fluorochromes list

Fluorochrome	流式細胞儀種類		Emission Max	Relative brightness	Spillover (1=low, 4=high)	Alternative to
	Spectral	Conventional				
Violet laser line						
 RV828	✓	-	828 nm	●●○○	1	Qdot™ 800, NovaFluor™ V800
Blue laser line						
RB545	✓	✓	545 nm	●●○○	1	(Unique position)
RB613	✓	✓	613 nm	●●●●	2	PE-CF594, PE-Dazzle™ 594, BB630-P2*, StarBright™ Blue 615
RB670	✓	✓	670 nm	●●●●	2	PE-Cy5, BB660-P2 or StarBright™ Blue 675
RB705	✓	✓	707 nm	●●●●	2	PerCP-Cy5.5, BB700*, StarBright™ Blue 700
RB744	✓	✓	746 nm	●●●●	1	BB755-P*
RB780	✓	✓	780 nm	●●●●	1	PE-Cy7 or BB790-P*
 RB824	✓	✓	824 nm	●●●○	1	PerCP/Fire™ 806, StarBright™ Blue 810
Yellow-green laser line						
RY586	✓	✓	586 nm	●●●●	1	PE**
RY610	✓	✓	610 nm	●●●○	1	PE-CF594 or PE-Dazzle™ 594**
RY655	✓	✓	654 nm	●●●●	3	PE-Cy5 or StarBright™ Yellow 665
RY703	✓	✓	703 nm	●●●●	2	PE-Cy5.5 or StarBright™ Yellow 720**
RY743	✓	✓	743 nm	●●●●	2	PE/Fire™ 744
RY775	✓	✓	775 nm	●●●●	2	PE-Cy7 or StarBright™ Yellow 800**
Red laser line						
 RR688	✓	✓	688 nm	●●●●	2	Alexa Fluor™ 660, Spark NIR™ 685, NovaFluor™ R685, cFluor® R685

* When used with a blue laser on three-laser configuration (B, V, R)

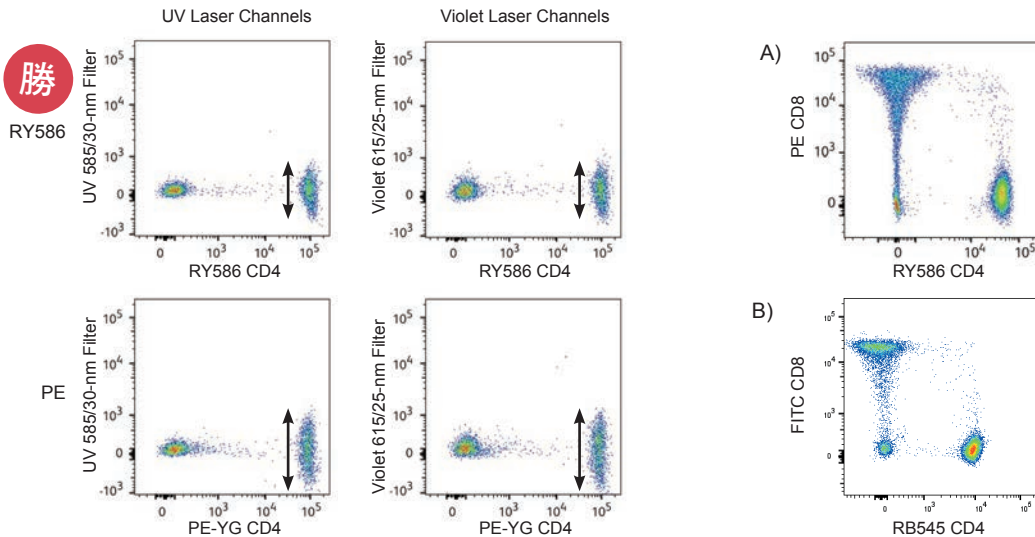
** When used with a yellow-green laser on four- or five-laser configuration (B, V, R, YG or UV, V, B, YG, R)

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

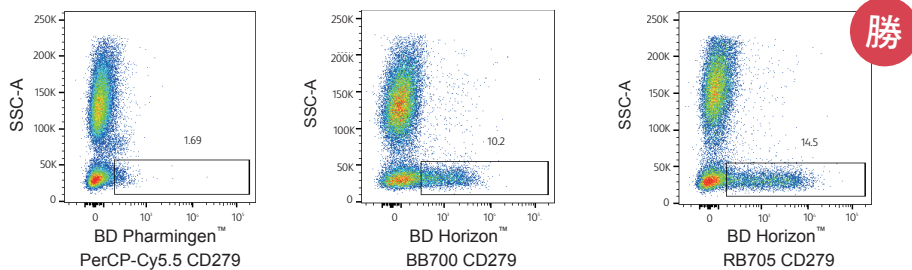


RY586 和 PE 相比，比較不會漏光到
Violet, UV laser 通道，減少干擾

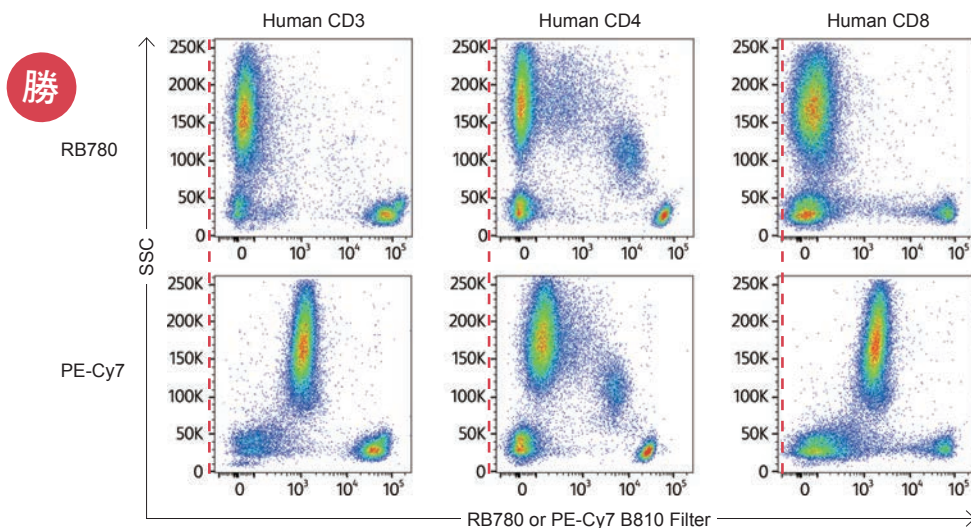
在光譜型流式細胞儀，A) PE 和 RY586,
或 B) FITC 和 RB545 可以同時使用



高亮度的 RB705 可以解決低抗原表達問題



和 PE-Cy7 相比，RB780 可以顯著降低背景值 (全血染色)





高參數 24-color panel & data

Fluorochrome marker assignment for a 24-color spectral flow cytometry
human T cell activation panel acquired on the BD FACSDiscover™ A8 Cell Analyzer

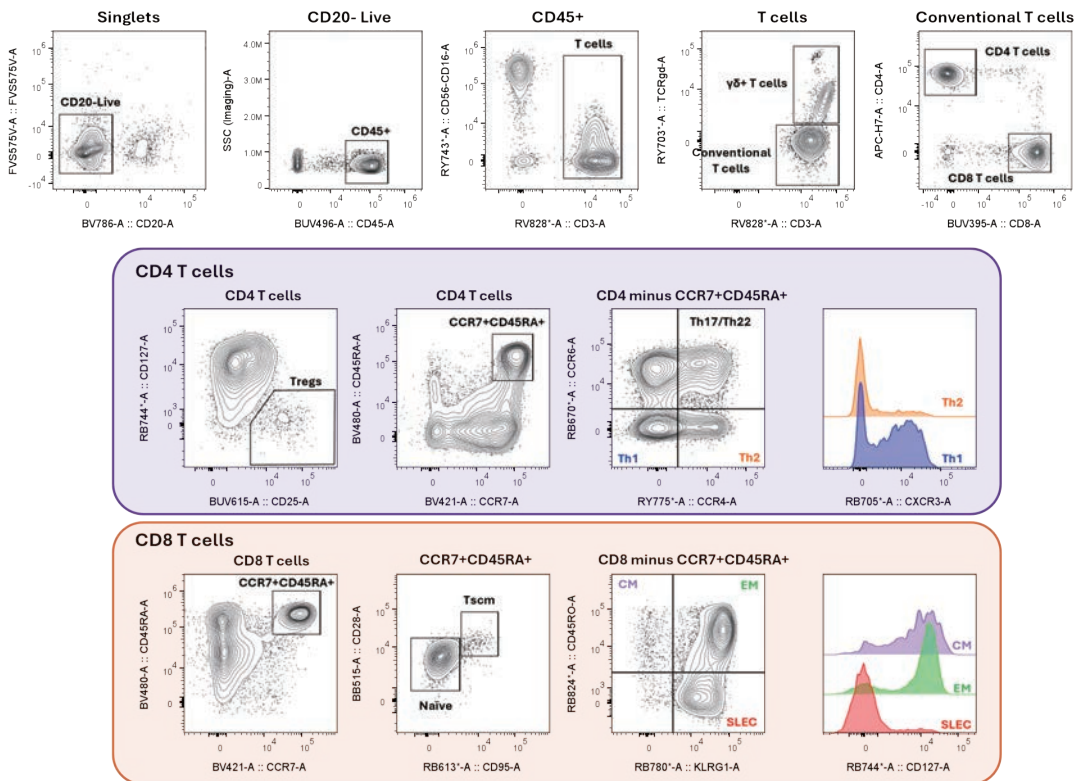
24-color panel

	Specificity	Clone	Fluorochrome
UV 349 nm	CD8	RPA-T8	BUV395
	CD45	HI30	BUV496
	CD25	2A3	BUV615
Violet 405 nm	CCR7	2-L1-A	BV421
	CD45RA	HI100	BV480
	Viability	N/A	FVS575V
	CD20	2H7	BV786
	CD3	UCHT1	RV828
Blue 488 nm	CD28	CD28.2	BB515
	CD95	DX2	RB613
	CCR6	11A9	RB670
	CXCR3	1C6/CXCR3	RB705
	CD127	HIL-7R-M21	RB744
	KLRG1	Z7-205.rMAb	RB780
	CD45RO	UCHL1	RB824
Yellow-Green 561 nm	TIM-3	7D3	RY586
	CD69	FN50	RY610
	TCR γ δ	11F2	RY703
	CD56	B159	RY743
	CD16	3G8	RY743
	CCR4	1G1	RY775
Red 637 nm	CD19 CAR Detection Reagent	N/A	AF647
	PD-1	EH12.1	RR688
	TIGIT	TgMab-2	R718
	CD4	RPA-T4	APC-H7



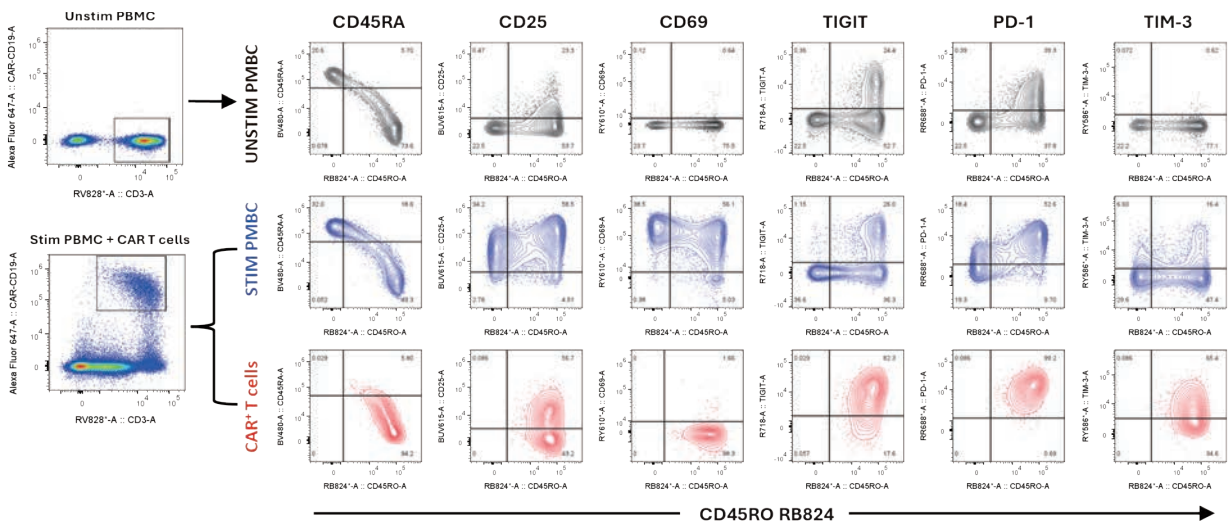
Gating scheme of T cell subsets

A) T Cell Phenotyping of Unstimulated PBMC



A) Gating strategy for T cell phenotyping of unstimulated PBMC.

B) Expression of Memory, Activation and Inhibitory Markers Across Samples



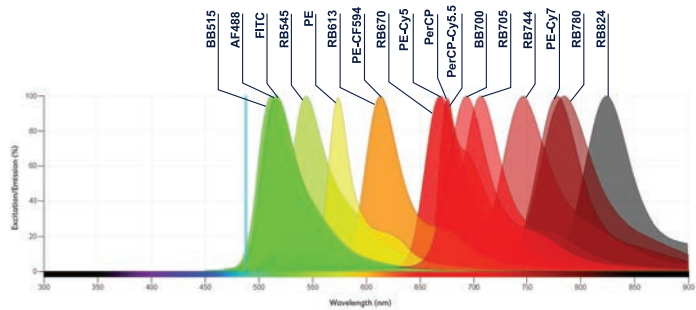
B) Pseudocolor plots show detection of CD19 CAR+ T cells in the stimulated PBMC sample mixed with CAR T cells. Contour plots show expression of memory, activation and inhibitory markers in unstimulated PBMC, stimulated PBMC and CD19 CAR+ T cells.

PBMCs were isolated from a healthy donor and divided into two conditions: unstimulated and stimulated with CytoStim™ (Miltenyi Biotec). After 24 hours, both samples were collected and labeled with CD45. CAR T cells were spiked into the stimulated sample. Samples were then stained with the remaining 23 markers of the 24-color T cell activation panel incorporating BD Horizon RealViolet™ 828 (RV828) and RB824, along with a BD CD19 CAR Detection Reagent, and analyzed on the BD FACSDiscover™ A8 Cell Analyzer.

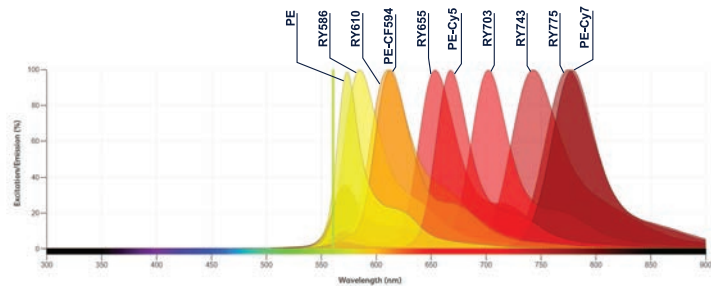


BD Fluorochrome and Laser Reference

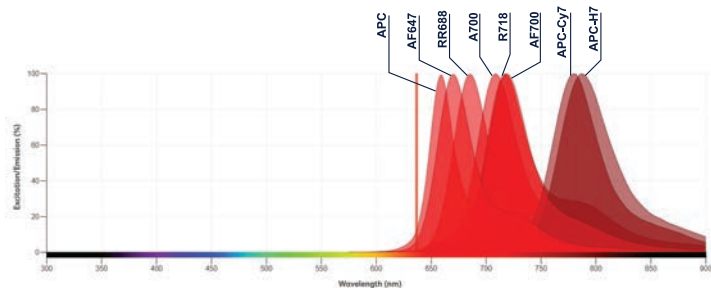
**Blue
Laser**



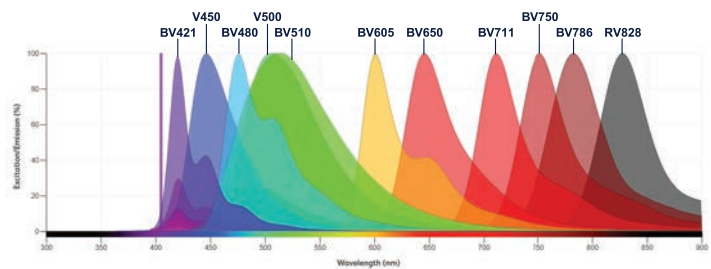
**Yellow-green
Laser**



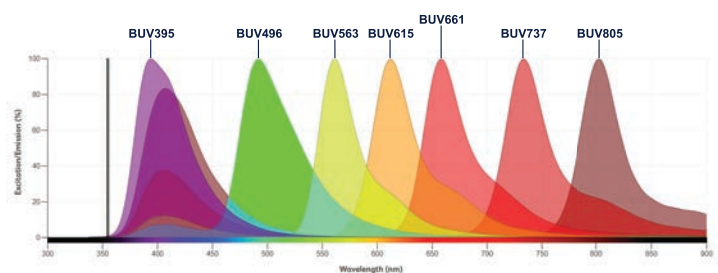
**Red
Laser**



**Violet
Laser**



**UV
Laser**



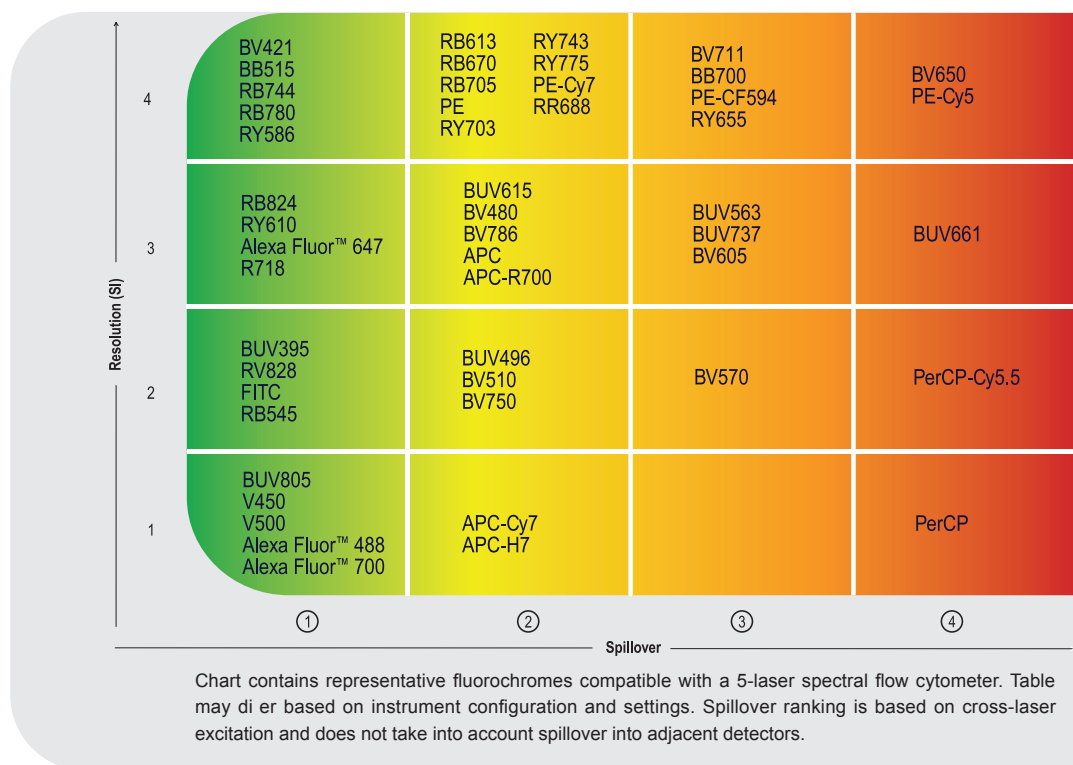


流式細胞術染色診療室

實驗症頭	貨號	品名	Flow 處方箋說明
背景值過高或疑似有非專一性現象出現	564219	Human Fc Block Pure Fc 1.3070 50 µg*	Fc receptor blocking 減少非專一性抗體結合
	553141	Mouse CD16/CD32 Purified 2.4G2 0.1 mg*	
	570003	MonoBlock™ Leukocyte Staining Buffer 100 tests	減少非特異性螢光背景 (Cyanine 類的螢光，例如 PE-Cy7, PE-Cy5 等等)，可和 Fc block 同時使用加強效果
	568264	Brilliant Stain Buffer Plus 100 tests*	同時染兩種以上 Horizon Brilliant™ 系列螢光推薦使用，可減少螢光抗體非專一性結合
檢體易有細胞團塊或使用 sorter 分選時不知道用什麼 buffer 保存細胞	563503	BD FACS™ Pre-Sort Buffer, 250 tests	可維持單細胞懸浮，減少背景值和細胞結塊，適合用於流式分選或分析
細胞數過少無法做單染或單染無顯著陽性訊號，不易做螢光補償	569991	SpectraComp™ Unmixing and Compensation Particles, 100 tests	取代細胞做單色染色，陽性訊號結果可輕鬆做螢光補償，並減少細胞樣本的準備
	552843	Mouse Ig Kappa Comp Bead Set 6.0 mL	
	552844	Rat Ig Kappa Comp Bead Set 6.0 mL	

* 另外大包裝可供選擇

Fluorochrome Performance Chart — 解析度和漏光程度



新版 BD®
Spectrum Viewer ►



更多
BD 螢光資訊 ►



BD Horizon Brilliant™ Dyes

高亮度螢光系列抗體

BD Horizon Brilliant™ 螢光染劑是收購 Sirigen 公司獨創聚合物染劑技術開發而成 (polymer dyes technology)。這項技術提供螢光染劑的**高亮度**及**高穩定特性**，可以**解決低表達抗原染色結果分辨率不佳**的問題，且**螢光品項眾多**，在多色組合設計上更彈性，現已成為不可或缺的一員。

系列螢光

Fluorochrome	Emission Max	Filter*	亮度	特色 **
Horizon Brilliant™ Blue_488 nm (blue) laser line				
BB515	515 nm	530/30	●●●●	1. 高亮度 BB515 可以取代 FITC 和 Alexa Fluor®488，且較不易漏光到 PE channel 2. 高亮度 BB700 可以取代 PerCP-Cy5.5 且較不易被 violet laser 激發，即較少漏光到 violet channel
BB700	695 nm	695/40	●●●●	
Horizon Brilliant™ Violet_405 nm (Violet) laser line				
BV421	423 nm	450/40	●●●●	1. 品項選擇眾多，是多色 panel 設計的好選擇 2. BV421, BV480, BV510 為搭載 Violet laser 機型必選螢光 3. BV421 的高亮度特色，甚至比 PE 更亮或一樣亮，是低表達抗原的首選，人氣居高不下
BV480	479 nm	525/40	●●●●	
BV510	512 nm	525/50	●●●●	
BV570	573 nm	575/26	●●●●	
BV605	605 nm	610/20	●●●●	
BV650	649 nm	660/20	●●●●	
BV711	713 nm	710/50	●●●●	
BV750	754 nm	750/30	●●●●	
BV786	786 nm	780/60	●●●●	
Horizon Brilliant™ UV_355 nm (UV) laser line				
BUV395	395 nm	379/28	●●●●	1. 為 BD 研發染劑 2. 特殊的 UV laser 激發，有較少的漏光現象 3. BUV395 因為 emission 波長偏短，不易漏光到其他偵測器，對許多螢光通道甚至無干擾，是多色 panel 設計的最佳選擇！
BUV496	496 nm	515/30	●●●●	
BUV563	564 nm	585/15	●●●●	
BUV615	615 nm	616/23	●●●●	
BUV661	660 nm	670/25	●●●●	
BUV737	735 nm	740/35	●●●●	
BUV805	803 nm	820/60	●●●●	

* Filter 因為各廠牌、機款的流式細胞儀的設計略有不同，此表僅供參考。

** 請依照螢光配色原則來找到適合的螢光。

BD

For Research Use Only. Not for use in diagnostic or therapeutic procedures.