

Brilliant Violet 605™ beta test results

Comparison of Cytokine Expression on CD154⁺/CD8⁺ and CD154⁺/CD8⁻ cells

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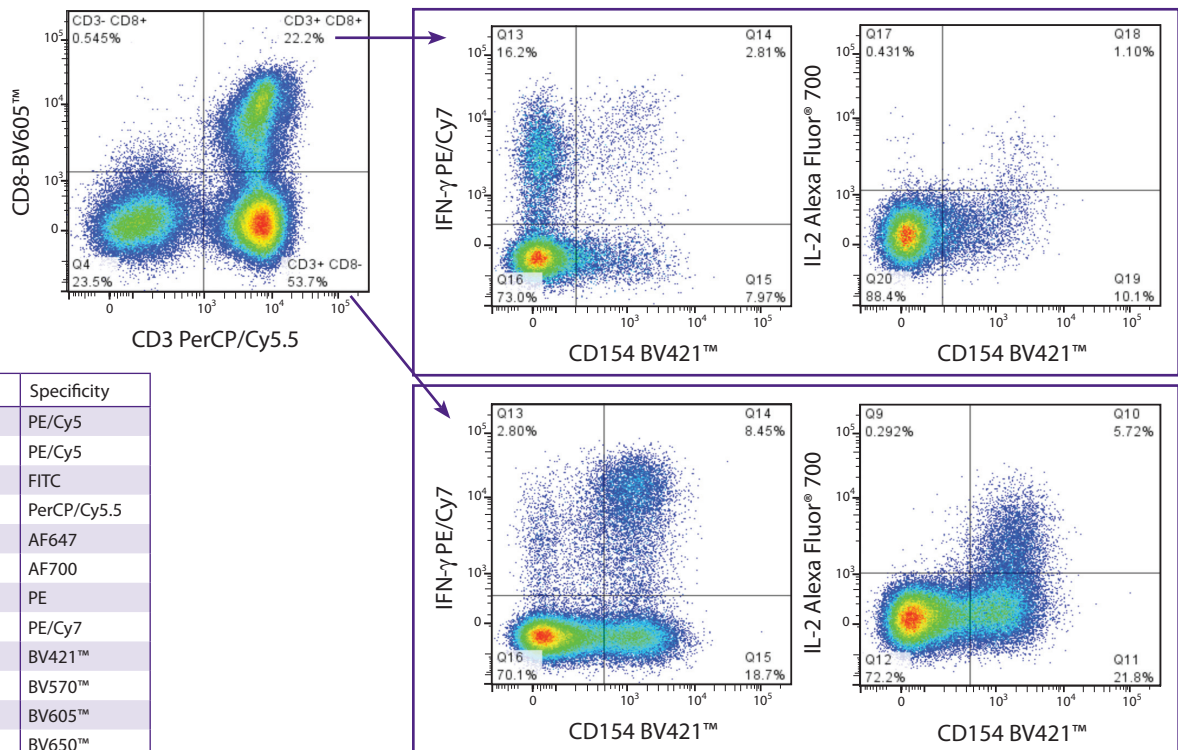
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Cat. No.	Description	Clone
301039	Brilliant Violet 605™ anti-human CD8a	RPA-T8
310823	Brilliant Violet 421™ anti-human CD154	24-31

Brilliant Stability for Intracellular Staining

CD154 (CD40L) is upregulated in activated cells, where it interacts with CD40 to induce B-cell activation, cytokine production and thus, fate determination. For this experiment, T cell activation is determined by expression of IL-2 and IFN-γ. In this analysis, CD3 PerCP/Cy5.5 vs. CD8 BV605™ defines CD8⁺ vs. CD4⁺ (CD8⁻) T-cells. From those subsets, CD154 BV421™ vs. IL-2 Alexa Fluor® 700 or CD154 BV421™ vs. IFN-γ PE/Cy7 expression is compared. CD4⁺ cells express more CD154 and IL-2

than CD8⁺ cells and IFN-γ expression is similar in both populations. IL-2 is strongly co-expressed with CD154, especially in CD4⁺ cells. The majority of IFN-γ in CD8⁺ cells is singly expressed while, in CD4⁺ cells, the majority of IFN-γ is co-expressed with CD154, due in part to the reduced CD154 expression in CD8⁺ cells. However, when comparing the ratio of CD154⁺ cells to CD154/IFN-γ co-expressing cells, CD154⁺ CD4⁺ and CD8⁺ T cells are roughly similar in their ability to produce IFN-γ.



Panel

Fluorophore	Specificity
CD16	PE/Cy5
CD19	PE/Cy5
T-bet	FITC
CD3	PerCP/Cy5.5
Eomes	AF647
IL-2	AF700
Perforin	PE
IFN-γ	PE/Cy7
CD154	BV421™
CD57	BV570™
CD8	BV605™
CD27	BV650™
Blue	Live/Dead

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