Flow Post-its
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Impacts of Spread

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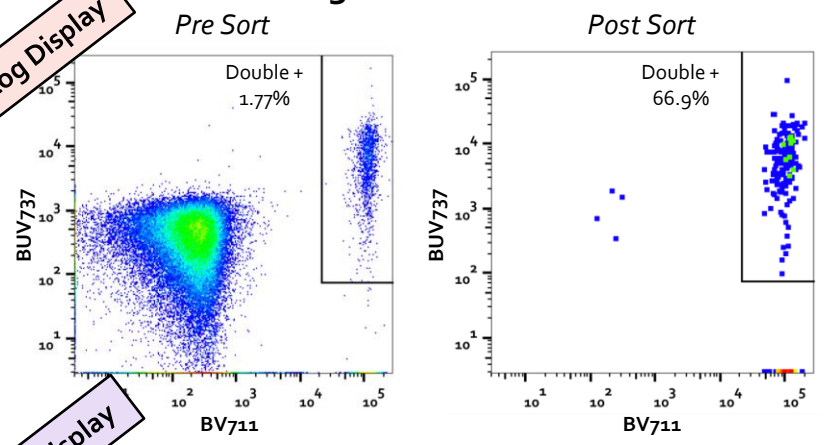
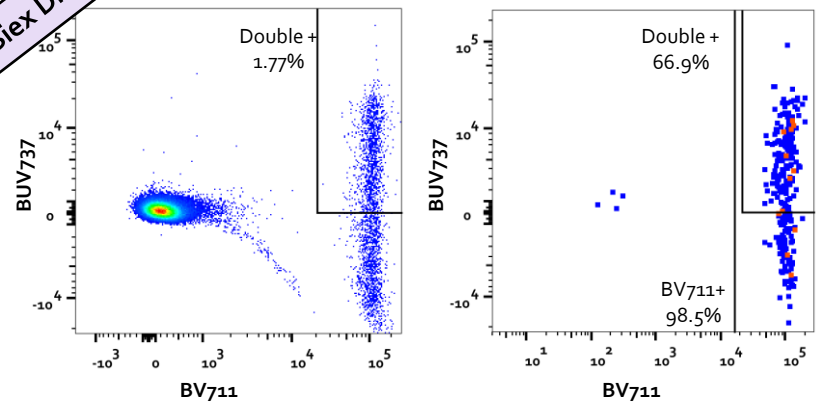
When designing and executing multiparameter flow cytometry experiments, instrument **configuration** and **panel design** both play a very important role. Just because a cytometer can detect fluorochromes does not mean that it will work with your experiment. Care must be taken when designing your panel to **avoid** fluorochrome combinations that introduce **high spread** with **coexpressing markers**.

Original Panel

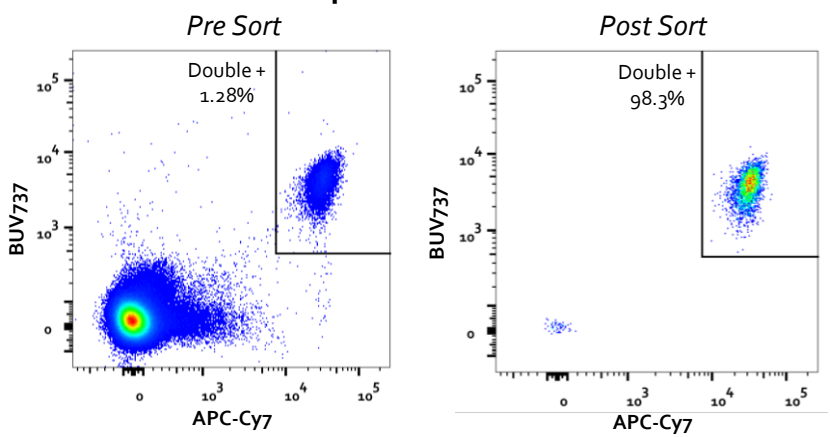
Log Display



Biex Display



Optimized Panel



Experiment Comparison

Original: Double positive population of BV711 and BUV737 needed to be isolated for sorting. A gate was set on what was believed to be this population. Post sort purity revealed **purity of 66.9%**. During troubleshooting, samples were visualized in biexponential display and it was identified that there was **high spread** of BV711 into BUV737, resulting in no clear BUV737+ population. Sorter proved to be operational as purity of 98.5% was observed when gating on BV711+ population.

Optimized: Panel was adjusted with to minimize impacts of spread. New combination of BUV737 and APC-Cy7 was used. Double positive population resolved well and post sort check showed **purity of 98.3%**