Flow Cytometry and FACS Analysis - Cell Staining

OVERVIEW

Flow Cytometry and Fluorescence Activated Cell Sorting (FACS) allows cells of interest to be stained by fluorescently conjugated primary antibodies and subsequently sorted by laser excitation, charge and microfluidics using a Flow Cytometer or FACS Analyzer. The FACS Analyser allows the collection of target cells whereas Flow Cytometry does not. Cells can be stained and sorted by traditional methods or by following the instructions below.

FACS PROCEDURE

1. Per 5x10⁵ cells, resuspend cell pellet in 80uL staining buffer.
2. Add 20uL of a fluorescence-conjugated primary antibody against a biomarker of interest to 10⁶ cells.
3. Incubate in dark for 20 minutes at 2 - 8° C.
4. Dilute cell suspension in 1.5mL of cold staining buffer and centrifuge at 4°C at 300 x g for 5 minutes.
5. Remove supernatant and resuspend pellet in 1.5mL cold staining buffer and centrifuge at 4°C at 300 x g for 5 minutes.
6. Remove supernatant and resuspend pellet to a final volume of 500 µL in staining buffer for Flow Cytometry or FACS analysis.