

## FLOW CYTOMETRY (FC, FCM)

### Reagents

- 1) PBS Buffer: pH 7.4
- 2) Blocking Buffer: 0.5% BSA-PBS
- 3) Fix Buffer: 2-4% paraformaldehyde
- 4) Penetrating Buffer: 90% methanol
- 5) Primary Antibody
- 6) Secondary Antibody (this is not required if the sample was directly labelled with a conjugated primary antibody)

### Procedure

- 1) Cell Collection: Collect cells and adjust the cell concentration to 1-5 x 10<sup>6</sup> cells/ml.
- 2) Wash and Centrifuge: Add 2 ml blocking buffer, then shake slightly and centrifuge at 1500-2000 rpm for 5 min.
- 3) Cell Fixation: Discard the supernatant, then fix cells in 1 ml fix buffer and incubate at room temperature for 10 min.
- 4) Wash and Centrifuge: Centrifuge at 1500-2000 rpm for 5 min, then wash cells once with 1 ml blocking buffer and centrifuge again at the same condition.
- 5) Permeabilisation: Discard the supernatant, add 1 ml precooled penetrating buffer and incubate at room temperature for 10 min (If the target is extracellular, skip this step).
- 6) Wash and Centrifuge: Centrifuge at 1500-2000 rpm for 5 min, then wash cells once with 2 ml blocking buffer and centrifuge again at the same condition.
- 7) Blocking: Incubate cells in blocking buffer for 30 min at room temperature.
- 8) Incubate Primary Antibody: Add primary antibody at 0.025 mg/ml and incubate for 90 min at room temperature.
- 9) Wash and Centrifuge: Centrifuge at 1500-2000 rpm for 5 min, then wash cells once with 2 ml blocking buffer and centrifuge again in the same conditions. Repeat this once.
- 10) Incubate Secondary Antibody: Incubate with conjugated secondary antibody for 40 min at room temperature (For direct labelling using a conjugated primary antibody, skip this step).
- 11) Wash and Centrifuge: Centrifuge at 1500-2000 rpm for 5 min, then wash cells once with 2 ml blocking buffer and centrifuge again at the same condition.
- 12) FC analysis: Re-suspend cells in 1 x PBS and analyse on flow cytometer.