

Information Sheet for Mass spectrometry experiments

For this experiment, we will provide the following for each group:

1. 0.100 mL of 2 mg/mL N60D calmodulin ($M = 16710$ g/mol) in TRIS 20 mM, NaCl 150 mM, pH 8.0, with EDTA-free protease inhibitor cocktail.
2. 5 mM ESI solution of ammonium acetate in milliQ water for sample preparation.
3. EuCl_3 10 mM stock solution in water.
4. Advion mass spectrometer coupled with Open Port Sampling Interface (OPSI) is used.
5. Pipettes with the minimum volume of 1 μL and a maximum of 1 mL.
6. Eppendorf tubes and MS vials.
7. AMICON ULTRA 0.5ML Centrifugal Filter Units.
8. Centrifuge.

Location: BCH 1520

TA: Yuri Cho

Information Sheet for NMR titration

For this experiment, we will provide the following for each group:

1. 0.500 mL of 2 mg/mL ¹⁵N-labelled N60D calmodulin (M = 16895 g/mol) in TRIS 20 mM, NaCl 150 mM, pH 8.0, with EDTA-free protease inhibitor cocktail.
2. 10 mL of TRIS buffer solution on (TRIS 20 mM, NaCl 150 mM, pH 8.0).
3. 3 mM EuCl₃ stock solution (1 mL) in TRIS buffer.
4. D₂O.
5. 5 mm NMR tubes.
6. Two Bruker NMR spectrometers (500 and 800 MHz), one per group.
7. Pipettes with the volume range from 2 µL to 20 µL.
8. Normal glassware such as beakers, volumetric flasks.

Tips:

1. 50 µL of D₂O must be added to the NMR tube for locking.
2. The measurement time is roughly 7 minutes per spectrum.

Location:

1. Sample preparation at the beginning of the TP: BCH 1506
2. NMR measurements: BCH 1508 and BCH 1510

TA: Ümmügülsüm Günes

Information Sheet for Fluorescence titration

For this experiment, we will provide the following for each group:

1. 0.150 mL of 2 mg/mL N60D calmodulin ($M = 16710 \text{ g/mol}$) in TRIS 20 mM, NaCl 150 mM, pH 8.0, with EDTA-free protease inhibitor cocktail.
2. 50 mL of TRIS buffer solution (TRIS 20 mM, NaCl 150 mM, pH 8.0).
3. EuCl_3 3 mM stock solution.
4. Two Agilent Cary Eclipse Fluorescence Spectrometers (one per group).
5. Two 1 cm*1 cm*4 cm cuvettes made of quartz (Price: >150 CHF per cuvette).
6. Pipettes with the minimum volume of 1 μL .
7. Normal glassware such as beakers and volumetric flasks.

Tips:

1. Pay attention to the volume of your sample in the cuvette.

Location: CH B0 375

TA: Shun Tian