

# Cell lysis

## Aim of the experiment

The purpose of this experiment is to use ultrasound to disrupt *E. coli* cells and release proteins.

## Materials

- Phosphate Buffered Saline (1×) (PBS Buffer)
- Phenylmethyl sulfonyl fluoride (PMSF)
- Centrifuge
- Vortex oscillator
- Ultrasonic disruptor

## Procedure

1. Mix the thawed protein thawed cell pellet with 1×PBS buffer at a ratio of 10g/L, suspend it with a vortex shaker and add 0.5 mM PMSF.
  2. Lyse cells using ultrasound (3s pulse, 30 % amplitude, 8s pause).
  3. Centrifuge the crushing liquid for 10 minutes at 4°C, 12000rpm
  4. Transfer the supernatant into a clean tube.
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