**Information needed for method section (2024):**

**Organism used:** *Lactococcus lactis*

**Growth media used:** 6 % w/v De Man–Rogosa–Sharpe (MRS) Broth, supplemented with Tween 80 at 0.1 % v/v

**Lysing agent used:** Bug Buster 10x Protein Extraction Reagent

**Buffer used:** 0.5 M MES buffer pH 6.8

Growth and lysis method:

 *L. lactis* was grown in growth media (as described above) at 30 °C at 180 rpm and harvested in the exponential growth phase.

Harvesting:

Spin down culture at 8000 rpm for 20 min at 4 °C

Discard supernatant

Wash pellet with water spin down at 8000 rpm for 20 min at 4 °C

Discard supernatant

Resuspend pellet in MES buffer and spin down at 8000 rpm for 20 min at 4 °C

Discard supernatant

Resuspend pellet in 5mL buffer : 1 g pellet

Add Bug Buster (10x) 0.1 mL : 5mL buffer. Incubate on rotating wheel for 30min at 4 °C.

Sonicate suspension for 1min interspersed on ice for 5 min (x 4 cycles)

Spin down for 15 000 rpm for 20 min at 4 °C, remove supernatant and put in separate tube (cell free extract)

Use QubitTM Protein BR Assay kit to determine protein concentration of cell free extract