

Protein extraction from fission yeast using alkaline lysis

1. Grow cells in YES (can use EMM, EMM-N also) to OD 0.5.
2. Take 10 ml culture, spin down and resuspend in 1 ml of deionized water (transfer to 1.5 ml eppendorf tube). Spin down and discard supernatant.
3. Resuspend cell pellet in 0.3 ml water, vortex (make sure cells are fully resuspended).
4. Add 0.3 ml of 0.6 M NaOH, vortex briefly.
5. Leave at room temperature for 10 min.
6. Spin down cells (4 krpm, 1 min) remove supernatant.
7. Add 70ul SDS sample buffer and resuspend cells by repeated pipetting.
8. Boil for 3 min and centrifuge. Take off supernatant and transfer to fresh tube. Either load gel directly (use ~15 ul of supernatant) or freeze sample at -20°C until use.

SDS sample buffer: 60 mM Tris-HCl pH 6.8, 4% beta-mercaptoethanol, 4% SDS, 0.01% bromophenol blue, 5% glycerol).

Reference:

Biosci Biotechnol Biochem. 2006 Aug;70(8):1992-4.

A rapid method for protein extraction from fission yeast.

[Matsuo Y](#), [Asakawa K](#), [Toda T](#), [Katayama S](#).