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One-dimensional SDS-PAGE (9-18% TGX gel)

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ABSTRACT

Protocol for one-dimensional sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE) on a 9-18% TGX gel for visualization and quantification of histone proteins.

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We use this protocol and it's working

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Sample preparation

- 1 Dry samples (equal to 400.000 cells)
- 2 Resuspend samples in 10µl laemmli-buffer
- 3 Add 1µl β-mercaptoethanol to each sample

Safety information
Perform this step in a fume hood
- 4 Vortex and spin down
- 5 Incubate for 7 minutes at 95°C in a thermoshaker
- 6 Spin down

Prepare Criterion Cell

- 7 Place the criterion cell on ice in a fume hood
- 8 Remove the sticker from the bottom of the gel cassette and check the gel for cracks
- 9 Put the gel cassette in the criterion cell
- 10 Fill the reservoir with running buffer (25mM Tris, 0.1% SDS, and 192mM glycine in MilliQ water) and take out the comb

Running of the samples

- 11 Load the samples and standards (2 µg of bovine histones) on the gel (3 standards per gel: lane 1, lane 9 and lane 18)
- 12 Put the cover on the criterion cell
- 13 Start running the gel on 200V

14 Stop running when the frontline is almost gone



Visualization

15 Take out the cassette

16 Incubate in fixation-solution (7% acetic acid, 10% methanol in MilliQ water) for 10 minutes on a shaker

17 Wash the gel 3 times for 5 minutes in MilliQ water on a shaker

18 Incubate in SyproRuby overnight



Overnight

19 Wash the gel 3x for 10 minutes in MilliQ water on a shaker

20 Visualize the gel (Versadoc)