



150 g

Plant material is frozen and homogenized in liquid nitrogen

Suspension in 1.5L of 4.5% PCA

Homogenization in rotor-stator homogenizer for 30 min. at max. speed

Removal of cellular debris by centrifugation (15 min., 15 000×g) and filtration of supernatant through Miracloth

Total volume ~1.5L

Precipitation of protein by addition of TCA to 25%, v/w and overnight incubation

Total volume ~2L

Centrifugation (25 000×g, 30 min., 30 ml glass tubes, 13 centrifugations were required to collect precipitate from the whole sample)

Protein precipitates rinsed twice by adding 30 ml of -20°C acetone and centrifugation (15 min., 25 000×g)

Six glass tubes containing precipitates vacuum dried and stored in -20°C

Pellet in each tube suspended in 500 µl of 4.5%G by vortexing and 15 min. sonication in ice-colded BioRuptor UCD-200 at maximal power operated in 30 s cycles (ultrasound source operating 15 s in each cycle).

Suspension transferred to microcentrifuge tubes, then glass tubes rinsed twice with 500µl of 4.5%G

Suspension sonicated in BioRuptor (as before) and incubated for 30 min. in termomixer (1400 rpm.)

Centrifugation for 15 min. at 25 000×g supernatants pooled in new tube

Addition of 2 ml of 50% Bio-Rex 70 in 4.5%G

Incubation for 4h Total volume at this stage with mixing by inversion ~12.5 mL

Suspension transferred to column, resin allowed to seettle (approximately 40 min.)

10 ml Proteins eluted with 10 ml portions of buffers

Unbound proteins

Fractions collected, frozen in liquid nitrogen, vacuum dried and stored in -20°C

10%G Histone H1

HPLC

suspension of pellets

100% TCA

x2

x2

4.5%G

6%G

10%G

x2