

Extracellular enzyme assays (NAG, BG, and CBH)

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Abstract

We conducted fluorimetric assays for each of three hydrolytic enzymes: b-glucosidase and cellobiohydrolase, and *N*-acetyl-glucosaminidase in black microplates. We measured fluorescence at 365 nm excitation and 450 nm emission. From each sample, we recorded fluorescence values for MUB substrate (substrate control), homogenate (homogenate control), MUB standards in the presence of maleate buffer (standard), and MUB in the presence of homogenate. We calculated potential extracellular enzyme activity of NAG, BG, and CBH from each litter sample.

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Materials

- ✓ NaOH by Contributed by users
- ✓ Sodium Acetate Buffer by Contributed by users
- ✓ MilliQ Water by Contributed by users
- ✓ 4-MUB- β -D-cellobioside (in refrigerator) 12.5 mg/50 mL 500 μ M by Contributed by users
- ✓ 4-Methylumbelliferyl β -D-glucopyranoside 16.9 mg/50 mL 1000 μ M by Contributed by users
- ✓ 1000 μ M 4-Methylumbelliferone 0.89 mg/50 mL 100 μ M by Contributed by users
- ✓ 4-MUB-N-acetyl--D-glucosaminide by Contributed by users

Protocol

Step 1.