**Small scale grain grinding using Precel lys® Evolution thanks 2mL, 7mL, 15mL tubes.**

**CONTEXT**

Precel lys® homogenizers range widely applied in laboratories for biological analysis. Now thanks the versatility (2mL; 7mL; 15mL tubes) of Precel lys® Evolution, a small scale grain powder can be performed. Precel lys® Evolution can grind dry grain (sesame, walnut, rice, beans, peanuts, barley, oats, wheat, lentils, soybeans; etc...), dry spices (chili, pepper, fennel, etc...), dry herbs and other materials into fine powder with no-cross contamination.

**MATERIAL**

- Precel lys® Evolution homogenizer,
- Precel lys® lysing kit: CKMix50_2mL (KT03961-1-013.2); CKMix50_7mL (KT03961-1-306.7); CK68_15mL (KT03961-1-514.15),
- Samples: 0.2g into 2mL tubes; 1g into 7mL tubes or 4g into 15mL tubes of grains of rice and wheat.
- No buffer (Dry grinding).

**PROTOCOL**

<table>
<thead>
<tr>
<th></th>
<th>Rice</th>
<th>Wheat</th>
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<tbody>
<tr>
<td>0.2g</td>
<td>7200rpm, 1x30sec</td>
<td>7200rpm, 1x30sec</td>
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<tr>
<td>1g</td>
<td>7200rpm, 1x30sec</td>
<td>7200rpm, 2x30sec (2min break)</td>
</tr>
<tr>
<td>4g</td>
<td>7200rpm, 3x30sec (2min break)</td>
<td>7200rpm, 4x20sec (2min break)</td>
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</tbody>
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- A large range of analysis can be performed from an aliquot of powder.

**RESULTS**

With the Precel lys® Evolution, 200mg, 1g or 4g of grain are efficiently ground under dry conditions in 2mL, 7mL and 15mL Precel lys® lysing kit before any downstream analysis (Figure 1).

**CONCLUSION**

Precel lys® Evolution homogenizer is the ideal tool to quickly grind small scale dry samples (grain, spices, herbs, other materials) into fine powder with no-cross-contamination thanks single tubes (2mL, 7mL, 15mL) before any downstream analysis.

Precel lys® Evolution is a versatile, efficient and high-throughput homogenizer that can process up to 6 samples of 15mL tubes, 12 samples of 7mL tubes or 24 samples of 2mL (or 0.5mL) tubes at the same time.

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