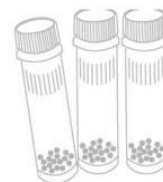


HAIR GRINDING IN 7ML TUBE



Bertin Technologies

▶ CONTEXT

Forensic or Toxicology laboratories experience difficulties with extraction due to the high energy needed to grind hard samples such as hair. The Precellys homogenizers provide high speed sample disruption based on bead-beating technology for the extraction of DNA, proteins, and drugs. In combination with Precellys, the Lysing Kit MK28R_2mL can grind perfectly up to 200 mg of hair.

But in some cases, laboratories need to grind a larger quantity of hair. This study aimed at developing a protocol for the grinding of 1 to 2 grams of hair in a 7mL tube.

▶ MATERIALS

- Precellys® Evolution
- Precellys® lysing kit: MK28 beads in bulk (KT03961-1-101.BK) + 7 mL empty tubes (KT03961-1-404.7)
- Sample: 1g of 1cm pre-cut hair

▶ PROTOCOL

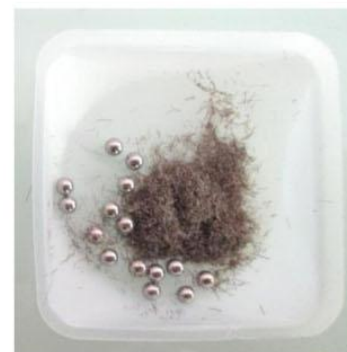
- Place 15 MK28 beads inside a 7 mL tube
- Add 1g of 1cm pre-cut hair into the tube
- Precellys® Evolution: 7200 rpm – 3 x 20s (20s of break)

▶ RESULTS

After 3 runs of 20s on the Precellys® Evolution, the hair is fully ground.



1g of hair before grinding

1g of hair after grinding with Precellys®
(7200 rpm – 3 x 20s (20s of break))

CONCLUSION



Used in conjunction with Precellys® Homogenizers, the new Lysing Kit MK28 7mL efficiently grinds large quantities of hair with highly reproducible results. Also, a large amount of hair is easily loaded into the 7mL tubes, which is important for routine toxicology work.

03712-810-DU109


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