

# Drug extraction from whole iris-ciliary body pork PharmOptima, Portage MI, USA

## CONTEXT

PharmOptima focuses on **in vivo and in vitro DM&PK and Discovery Services**, providing IND & NDA-enabling research protocols. High quality DM&PK and Ocular PK research are a part of the laboratory's daily activities.

PharmOptima, experienced in ophthalmology studies, currently uses Precellys to homogenize a variety of ocular tissues as **cornea, conjunctiva, lens, iris-ciliary body, trabecular meshwork, sclera, retina, choroid, optic nerve**. In this study, Minilys has been compared to current method (Precellys) to homogenize whole iris-ciliary body from pork.

## MATERIAL

- Minilys vs Precellys Dual homogenizer
- Precellys kit ceramic beads 7mL vial (réf.0904-01) +2 beads (Réf.03961-1-106).
- Sample: Thawed whole iris-ciliary body pork (~0.7 g) into 7mL vial.
- Buffer: 2 volumes of sodium chloride solution.

## PROTOCOL

- Minilys & Precellys: 5000 rpm, 4x30sec (15sec break).
- Analysis: liquid-liquid extraction; LC-MS/MS system.

## RESULTS

The analyte levels are equivalent. No difference involving the both homogenizer is detectable (See Figure 1).

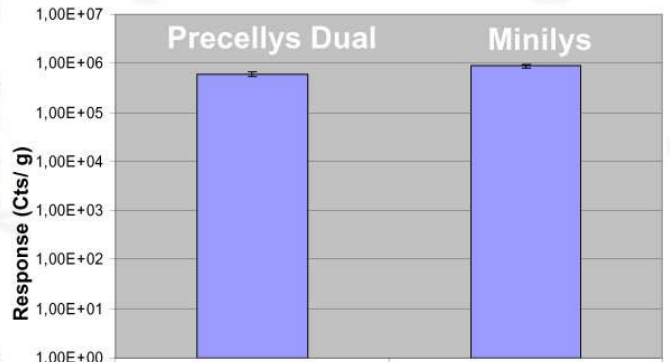
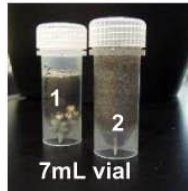


Figure 1: LC-MS/MS analysis from Precellys Dual and Minilys sample.



## CONCLUSION

**Precellys Dual and Minilys** are suitable and reliable systems to extract Drug from ocular tissues for DM&PK testing thanks grinding whole organs as iris-ciliary body pork with a fast process, cross-contamination free, high reproducibility and comparable drug levels extracted.

**Minilys** homogenizer is a real alternative for standardization of the sample preparation for laboratories with a low or medium throughput of sample.

For more details, please contact [precellys@bertin.fr](mailto:precellys@bertin.fr)



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