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 (rēf.0904-01) +2 beads (Réf.0961-1-106).
- 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

http://www.technosaurus.co.jp