

# Retrospective Monitoring of Long-Term Recreational and Dependent Cocaine Use in Toenail Clippings/Scrapings as an Alternative to Hair.

Toenails

## CASE STUDY

Madry, M; Steuer, A.; Vonmoos, M.; Quednow, B.; Baumgartner, M; Kraemer, T. *Bioanalysis*. 2014, 6.

### Overview

- **Keywords:** Abstinence, nails, contamination, LC-MS/MS, norcocaine, cocaine, cocaethylene, benzoylecgonine
- **Aim of the study:** Retrospective monitoring of cocaine consumption of recreational and dependent users
- **Application:** Cocaine and metabolite analysis by LC-MS/MS
- **Sample name:** Toenails
- **Material:** FastPrep-24™ Homogenizer, 2 mL Lysing Matrix S tubes containing metal beads

### Protocol and Parameters

1. Wash nail clippings twice with 1 mL of water and acetone, respectively, by vortexing for 30s.
2. Cut into snippets and weigh approximately 5 mg into Lysing Matrix Tubes containing metal beads for pulverization at 5.5 m/s (8-times for 60 s) using a FastPrep-24™ homogenizer.

### Conclusion

The FastPrep-24 instrument and Lysing Matrix tubes offer a quick and efficient solution for grinding nail clippings for retrospective monitoring of cocaine consumption/abstinence.



### MP Biomedicals

Americas: 800.854.0530 | [custserv@mpbio.com](mailto:custserv@mpbio.com)

Europe: 00800.7777.9999 | [custserv.eur@mpbio.com](mailto:custserv.eur@mpbio.com)

APAC: 65.6775.0008 | [enquiry\\_ap@mpbio.com](mailto:enquiry_ap@mpbio.com)

**LEARN MORE!**

[www.mpbio.com](http://www.mpbio.com)