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Authors: Heike Bittersohl, Björn Schniedewind, Uwe

Christians, Peter B. Luppa

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ACCEPTED MANUSCRIPT

A simple and highly sensitive on-line column extraction liquid chromatography-tandem mass spectrometry method for the determination of protein-unbound tacrolimus in human plasma samples

Running Head

MEASURING PROTEIN-UNBOUND TACROLIMUS

Authors

Heike Bittersohl¹, Björn Schniedewind², Uwe Christians^{2*}, Peter B. Luppa^{1*}

¹ Institute for Clinical Chemistry and Pathobiochemistry, Klinikum rechts der Isar, Technische Universität München, Munich, Germany

² iC42 Clinical Research and Development, University of Colorado Denver, Anschutz Medical Campus, Aurora, CO, USA

Contact Details of Corresponding Author

Dr. Heike Bittersohl
Klinikum rechts der Isar der TU München
Institut für Klinische Chemie und Pathobiochemie
Ismaninger Str. 22
81675 München

Phone: +49 89 4140-4071 Fax: +49 89 4140-4875 heike.bittersohl@tum.de

Highlights

- A highly sensitive LC-MS/MS method for direct quantification of free tacrolimus.
- The automatic on-line column sample extraction step saves time and costs.
- Formation of tacrolimus lithium adduct ions for increase of assay sensitivity.
- An LLOQ of 1 pg/mL (10 fg on column) using 10 μL of ultracentrifuged human plasma.

^{*} These authors share senior authorship.

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