

Note d'application

Simple and Selective Bioanalytical Plasma Sample Extraction Using Oasis® MCX SPE for High Analyte Recovery

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Ce document est une note d'application et ne contient pas de section détaillée concernant l'expérimentation.

Abstract

This application demonstrates the simple and selective bioanalytical plasma sample extraction using mixed-mode ion-exchange solid phase extraction (SPE), requiring no protocol method development, for high extraction MCX SPE recovery of several tyrosine kinase inhibitors (TKI) used in the treatment of leukemia.

Experimental

Oasis MCX SPE Protocol
96-well plate, μ Elution Plate, 2 mg
sorbent per well, 30 μ m
P/N 186001830BA



Sample Pretreatment:
200 μ L 4% H_3PO_4 to 200 μ L plasma sample
Load:
400 μ L pre-treated sample
Wash:
200 μ L 2% Formic acid in H_2O
Elute 1 (Neutral):
2x 25 μ L 100% MeOH
Elute 2 (M-M Fraction):
2x 25 μ L 5% NH_4OH in 100% MeOH
Dilute:
50 μ L 100% H_2O

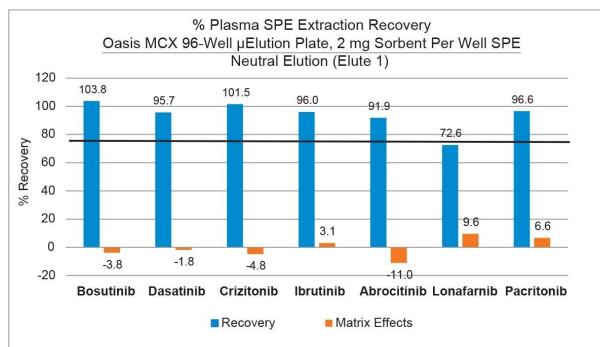


Figure 1. Demonstration of Oasis MCX SPE bioanalytical extraction performance of several TKI pharmaceuticals, requiring no optimization of the starting protocol, resulting in > 72.6% recovery and matrix effects between -3.8 and -11.0% from plasma.

Results and Discussion

High analyte recovery and selectivity from plasma using Oasis MCX SPE for top-selling small molecule tyrosine kinase inhibitor pharmaceuticals in 2023.¹

References

- Williams, RE and Leatherwood HM Top 200 Small Molecule Drugs by Retail Sales in 2023.<https://bpb-us-e2.wpmucdn.com/sites.arizona.edu/dist/9/130/files/2024/05/2023Top200SmallMoleculePosterV5.pdf> <<https://bpb-us-e2.wpmucdn.com/sites.arizona.edu/dist/9/130/files/2024/05/2023Top200SmallMoleculePosterV5.pdf>> (accessed 21 June 2024).

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720008424, July 2024



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