

Bioanalytical quantification redefined using the SCIEX QTRAP® 6500+ LC-MS/MS System



Highly sensitive LC-MS/MS method for the quantification of barnidipine in human plasma, using the SCIEX QTRAP® 6500+ System

Barnidipine is a long-acting novel calcium antagonist that belongs to the dihydropyridine (DHP) group of calcium channel blockers. Plasma concentrations of barnidipine in typical target ranges for pharmaceutical development are extremely low and require sensitive assays to determine the pharmacokinetic parameters. A sensitive bioanalytical method that can quantify at picogram per mL levels is needed.

In this method the calibration range was prepared from 5 to 8005.88pg/mL as per the regulatory requirement in the plasma samples. LOD was 0.1pg/mL in a neat solution. The LC MS/MS analysis was done in SCIEX QTRAP® 6500+ System.

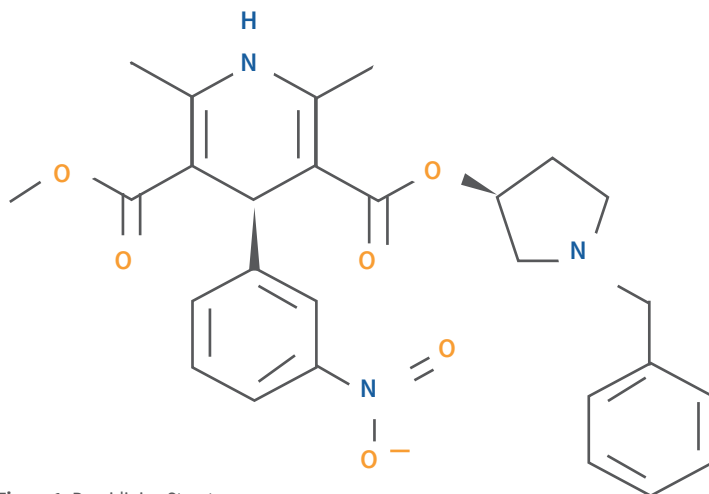


Figure 1. Barnidipine Structure.

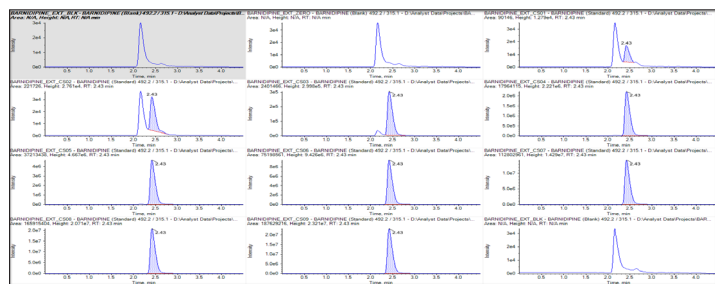


Figure 2. Chromatograms of blank plasma, and calibration curve samples from the Barnidipine method.

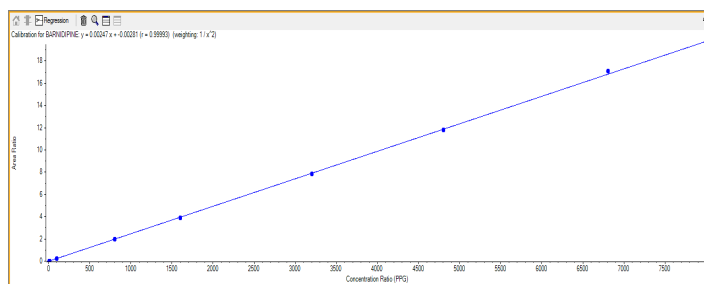


Figure 3. Linearity Plot for Barnidipine range 5 to 8005.88pg/mL.

To know more about this method please email: Marketing.India@sciex.com

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