

Fluticasone Propionate Bioanalysis: Method and strategic perspectives for addressing the rising complexity

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research

SCIEX 7500



Fluticasone propionate is a synthetic trifluorinated glucocorticoid with potent and generalized anti-inflammatory activity. It is currently one of the most effective drugs used in the treatment of asthma. For patients with persistent asthma, inhaled corticosteroids (ICS) have been the first-line treatment regardless of disease severity. Due to low pediatric dose, fluticasone propionate has very low circulating levels of plasma concentrations in human blood. Therefore, it is very important to have an analytical method with ultra-low detection limits for both analytes in human plasma to understand pharmacokinetics.

Key Challenges:

- Sensitivity: Due to high intrasubject variability required sensitivity is at femtogram level, leading to large sample processing volume.
- Speed: High-throughput analysis requirement for BE studies but sensitivity requirement lead to longer runtime.
- Performance: Reproducible data at the lower quantitative levels.

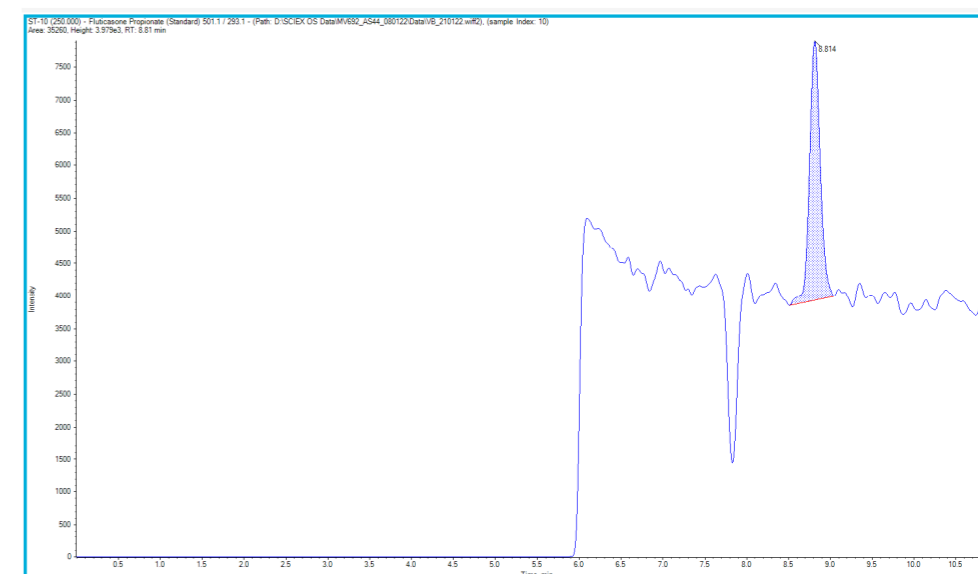
Cliantha Research, strengthened operational capability with SCIEX 7500 for complex and demanding matrices

A highly selective, sensitive and reproducible bioanalytical method was developed for the detection of fluticasone propionate in human plasma with the SCIEX 7500 LC-MS/MS System.

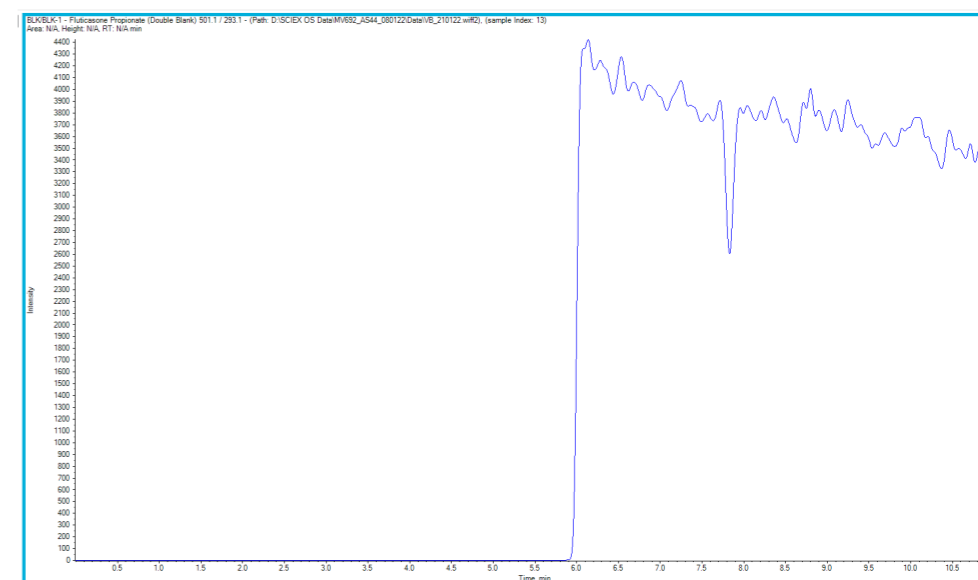
Cliantha advantages in Fluticasone Propionate Bioanalysis: Enabling customers to go beyond previous limits:

- Highly sensitive and reproducible assay
- Ultra-lower limits of quantification across large available bioanalysis suite
 - Calibration curve range: 0.2500 pg/mL to 200.0 pg/mL
 - Aliquote volume: 500 µL
 - Extraction procedure: Liquid-Liquid extraction method
- Validated method available

Representative chromatogram of LLOQ (0.250 pg/mL)



Representative chromatogram of BLK/BLK



Contact Cliantha for more information about how we can enable you to make product launch decisions faster.

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