LC/MS/MS System Suitability Test Mix for Drug Analysis

Analytical Reference Materials

- Increase sample throughput and data quality with easy, reliable verification of LC/MS/MS performance.
- Method included in Cliquid™ Drug Screen & Quant Software—automatically generates test reports.
- Extensively documented preparation assures accurate, consistent solutions.

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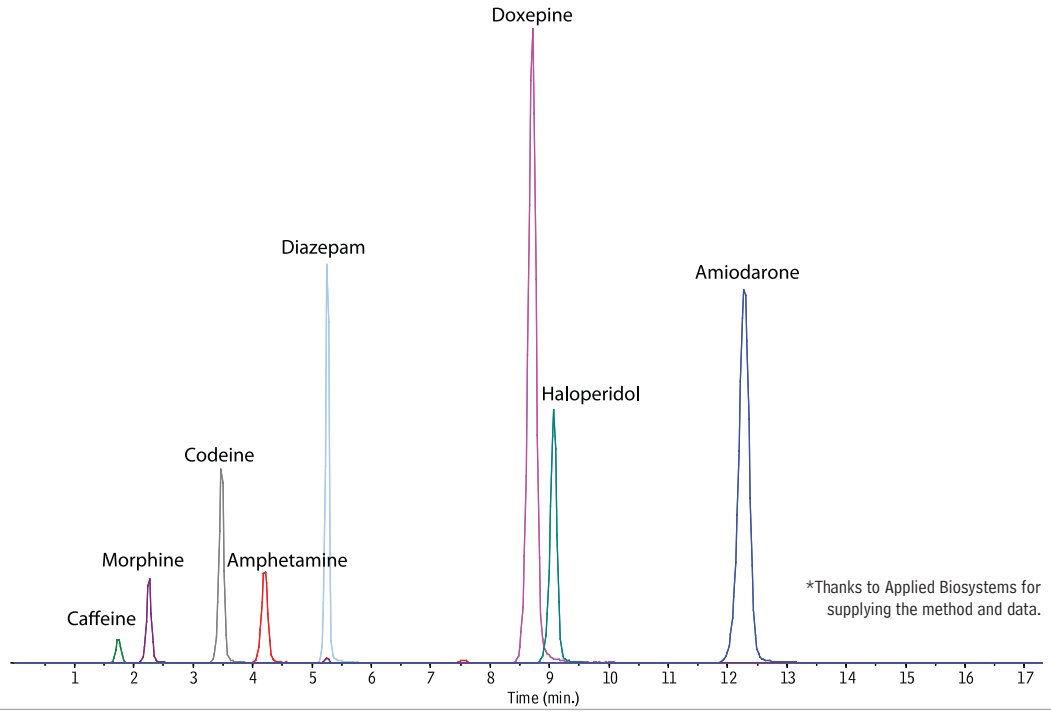
LC/MS/MS System Suitability Test Mix for Drug Analysis

Sample throughput is a critical issue in the drug toxicology industry—and it can be adversely affected by inferior system performance. Poor system performance can produce unreliable data, increase downtime, necessitate sample reanalysis, and lower sample throughput. Ensure that your LC/MS/MS system is running properly by analyzing a system suitability mix on a regular basis.

Restek, with the help of Applied Biosystems, has developed a system suitability mix for verifying system performance and identifying system problems. This mix contains compounds covering a wide range of masses and polarities (Figure 1). A simple test is run to evaluate the entire analytical system, including the autosampler, column, HPLC pumps, and mass spectrometer. Peak area, peak shape, retention time reproducibility, fragmentation, and library search function all are evaluated by comparing the test mix results with expected, baseline results.

Applied Biosystem's Cliquid™ Drug Screen & Quant Software automates this test and generates a verification report which highlights failures. Restek's new system suitability verification mix was designed for LC/MS/MS, but also can be used to verify single quadrupole instrument performance. Use this simple test to assure system performance and increase data quality and sample throughput.

Figure 1 System Suitability Mix (MRM Transitions) on Applied Biosystems/MDS SCIEX 3200 QTRAP® LC/MS/MS system using an Allure® PFP Propyl column.



ABI/SCIEX Cliquid™ Drug Screen Mix

Forensic Drug Screen Test Mixture

amiodarone	10µg/mL	diazepam	10
amphetamine	10	doxepine	10
caffeine	10	haloperidol	1
codeine	10	morphine	10

In P&T methanol, 1mL/ampul

cat. # 36340

Forensic Drug Screen Internal Standard

D5-diazepam D5-doxepine

10µg/mL each in P&T methanol, 10mL/ampul

cat. # 36341

Rely on Restek

All our standards are blended from thoroughly characterized raw materials using deactivated glassware and balances calibrated with NIST-traceable weights. Our rigorous quality control process includes the preparation, documentation, and thorough testing of two independent lots. Data packs with detailed quantitave information are available. Our clear outer packaging allows you to see contents, as well as any special storage or handling conditions. An ampul breaker, extra label, and additional deactivated screw-top vial are included for your convenience. All mixtures are produced in accordance with our ISO 9001:2000 registration.

also available

Blood alcohol, fire debris, and explosives standards.

See our catalog or visit **www.restek.com**.

free data

Available on Our Website: Lot Certificates, Data Packs, and MSDSs

For complete information detailing manufacturing and testing for Restek inventoried reference standards, just visit our website at **www.restek.com** To view lot certificates and/or an MSDS, enter the catalog number of the product in the Search feature. For a free data pack, as a printable pdf file, enter the catalog number and lot number of the product.

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