Don’t Miss Any Synthetic Drug Present In Your Sample

Enhanced Analyte Coverage Using the SCIEX All-In-One High Resolution MS/MS and NIST ‘17 MS/MS Mass Spectral Libraries

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High resolution mass spectrometry provide forensic scientists powerful tools to detect and identify novel drugs of abuse and other emerging forensic compounds of interest present in a variety of complex matrices.

The SCIEX All-In-One High Resolution MS/MS Spectral Library enables accurate compound detection and identification through library spectral matching. In combination with the licensed NIST ‘17 MS/MS Library, the forensic analyst has access to MS/MS spectra for over 17,000 compounds including novel synthetic drugs and metabolites commonly tested in forensic samples, including blood and urine.

This library is for use with the X500R QTOF System powered by SCIEX OS Software and also compatible for use with SCIEX TripleTOF® and QTRAP® Systems with MasterView™ Software and LibraryView™ Software.

Furthermore, this library package enables searching across a breadth of compound classes to enhance the accuracy and efficacy of non-targeted screening.

**Figure 1.** Obtain further synthetic drug identification through the addition of the licensed NIST ‘17 High Resolution MS/MS Spectral Library. A control urine sample was spiked with several forensic compounds of interest. The sample was analyzed using SWATH® Acquisition on the SCIEX X500R QTOF System and the acquired data searched against the All-in-One High Resolution MS/MS Spectral Library and NIST ‘17 MS/MS Spectral Library. All analytes were confidently identified using SCIEX OS Software data processing. In this example, the synthetic opioid hydrocodone (Isobaric Compound with Codeine), provided 99.8% fit against the NIST reference MS/MS spectrum using the smart confirmation algorithm and using the formula finder feature with mass error of 0.7 ppm.

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