

NEWS RELEASE

For More Information:

Mitzi Rettinger, 512/310-5105

mitzi_retinger@cerilliant.com

Cerilliant Offers New Certified Spiking Solutions[®] of Nicotine Metabolites and Nitrosamines

ROUND ROCK, TEXAS – November 27, 2012 – Cerilliant introduces new Certified Spiking Solutions[®] of nicotine metabolites norcotinine and *trans*-3-hydroxycotinine as well as nicotine nitrosamines NNN, NNK, and NAB at concentrations of 1.0 mg/mL in methanol for each solution standard. These certified reference solutions can be used as Snap-N-Spike[®] starting materials in the laboratory's matrix of choice for preparation of calibrators and controls in nicotine testing and other clinical or diagnostic applications by LC/MS or GC/MS.

Nicotine biomarkers are commonly monitored in patients who smoke cigarettes, use other nicotine products such as nicotine gum¹ and electronic cigarettes², or are exposed to environmental tobacco smoke. Accurate patient results in clinical and diagnostic testing of nicotine use depend on accurate and consistent Certified Reference Materials for the numerous nicotine metabolites.

Neat material handling of nicotine analogs and their preparation as certified reference solutions offer significant challenges to the laboratory due to high toxicity of the neat materials and their sensitivity to air and light. Cerilliant's validated process includes manufacturing controls for sensitive compounds such as raw material handling and solution preparation under inert conditions and flame-sealing of ampoules under argon to minimize degradation and promote long-term shelf life. Toxic materials are handled in isolation chambers and are gravimetrically prepared using precision balances which have been qualified to ensure minimal uncertainty.

"Protection of both production staff and the correct handling of these highly toxic neat materials are of paramount importance in the preparation of these solution standards. Consequently the formulation of the nicotine metabolites is limited to staff who have received and passed the appropriated level of internal training through our proficiency testing program to ensure proper use of equipment and accurate preparation using the glove boxes," added Gregory Kirkovits, PhD, manager of the Standards & Packaging group.

Cerilliant's latest nicotine metabolite and nitrosamine products complement their current offering of Certified Spiking Solutions[®] for nicotine, including anabasine, cotinine, and nornicotine and their internal standards, all offered at concentrations suitable for dilution to working levels in the laboratory's matrix of choice.

811 PALOMA DRIVE, SUITE A, ROUND ROCK, TEXAS 78665

PHONE 512/238-9974 | 800/848-7837 | FAX 512/238-9129 | 800/654-1458 | www.cerilliant.com

About Cerilliant

Cerilliant Corporation, located in Round Rock, Texas, is a global leader in providing certified reference standards for critical applications. The company has been providing certified reference materials for over 30 years. Cerilliant offers more than 3,000 catalog products and a full range of custom products and services that address the stringent and complex requirements of the pharmaceutical, clinical diagnostic, clinical/forensic toxicology, natural products, and environmental industries. Cerilliant sustains a modern, robust quality system which incorporates cGMP, GLP, and ISO requirements. We are accredited to ISO Guide 34 and ISO/IEC 17025 and certified to ISO 13485 and ISO 9001:2008.

Cerilliant Corporation is a subsidiary of Sigma-Aldrich®. For more information about Cerilliant, please visit www.cerilliant.com.

- 1.) <http://cancerres.aacrjournals.org/content/69/21/8236.full.pdf+html>
- 2.) <http://www.fda.gov/downloads/Drugs/ScienceResearch/UCM173250.pdf>

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