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## MIP Technologies and Supelco launch a new selective SPE product for the multi-residue extraction of fluoroquinolones (FQL) from food samples

*SupelMIP™ SPE-Fluoroquinolones simplifies extraction compared with other methods*

Lund, Sweden, July 08, 2008. MIP Technologies AB and Supelco, a division of the Sigma-Aldrich® Group (**NASDAQ: SIAL**), announced today the launch of a new SupelMIP™ product for the selective extraction of FQLs.

A simple, fast, selective and sensitive SPE product has been developed for confirmation and quantitation of FQL residues in food samples. The SPE phase has been developed for multi-residue extraction of FQL's and has been validated for sarafloxacin, norfloxacin, enrofloxacin and ciprofloxacin.

FQL's comprise a group of broad-spectrum antibacterial agents which are widely used in human medicine and to treat infections in farmed fish, shrimp, turkeys, pigs, calves and poultry. The presence of this antibiotic class in the environment at sub-therapeutic levels can lead to multiple FQL-resistant bacterial strains. When used to treat animals, FQL's may end up in the human food chain causing allergic reactions while at the same time encouraging development of resistant bacteria. Monitoring these substance residues at trace levels is therefore regulated by law. The EU has set strict Maximum Residue Limits (MRL's), the values of which depend on the particular compound and matrix, e.g. the MRL for enrofloxacin in bovine kidney is set at 200 µg/kg. The US, Canada and Japan have also set MRL's but for a more limited range of quinolones.

The four different FQL's; sarafloxacin, norfloxacin, enrofloxacin and ciprofloxacin were extracted from bovine kidney, milk and honey with high and reproducible recoveries. The precision of the methods are high with an RSD below 10% for all compounds studied.

"SupelMIP SPE-Fluoroquinolones is a fast and straightforward SPE method using a molecularly imprinted polymer. With this simple, single SPE cartridge method, the same limits of quantitation level are reached as competitor methods which require use of multiple SPE cartridge steps," said Dr Christine Widstrand, Chief Business Officer at MIP Technologies.

"This new SPE phase provides added value to the customers by being a fast and simple multi-residue extraction product for FQL's," said An Trinh, Product Manager, Supelco.

The SPE sorbents based on molecularly imprinted polymers have been developed by MIP Technologies. SupelMIP™ is a trademark of Supelco, the worldwide product distributor.

#### **About MIP Technologies:**

MIP Technologies AB is a world-leading company in the development of molecularly imprinted polymers (MIPs). The Company is a pioneer in the commercial applications of MIPs, holds important patents and maintains cutting-edge research activities in this area. The Company's mission is to provide innovative products based on molecularly imprinted polymers that serve industry's needs in analytical, preparative and process scale 'selective separations'. The Company has environmental permission to produce MIP phases at the 500 kg level and is well placed to develop large-scale separation solutions for its customers. Currently, the Company develops analytical separation products (e.g. SPE) and has multiple custom process scale projects in place with several blue chip companies. MIP Technologies has its headquarters in Lund, Sweden. For more information about MIP Technologies AB visit [www.miptechnologies.com](http://www.miptechnologies.com)

#### **About Sigma-Aldrich:**

Sigma-Aldrich is a leading **Life Science and High Technology company**. Its biochemical, analytical, and organic chemical products and kits are used in scientific and genomic research, biotechnology, pharmaceutical development, the diagnosis of disease and as key components in pharmaceutical and other high technology manufacturing. The Company has customers in life science companies, university and government institutions, hospitals, and in industry. Over one million scientists and technologists use its products. Sigma-Aldrich operates in 36 countries and has 7,900 employees providing excellent service worldwide. Sigma-Aldrich is committed to Accelerating Customer Success through Leadership in **Life Science, High Technology and Service**. For more information about Sigma-Aldrich, please visit its award-winning Web site at <http://sigma-aldrich.com>.

#### **Cautionary Statement:**

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