
Dolomite Microfluidics Partners with MilliporeSigma for Microfluidic Device Kits

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Dolomite Microfluidics and MilliporeSigma have begun a collaboration to release off-the-shelf microfluidic device kits for the fabrication of PLGA particles.

[Dolomite Microfluidics](#), a [UK](#)-based microfluidic solutions provider, has partnered with [MilliporeSigma](#) to create a range of off-the-shelf NanoFabTx microfluidic device kits that can produce poly (lactic-co-glycolic acid) (PLGA) nano- and microparticles for drug development and controlled drug release applications. The kits (available exclusively from MilliporeSigma) can also be applied to the encapsulation of drugs and other therapeutics in liposomes, such as the SARS-CoV-2 (COVID-19) vaccines currently under investigation.

The increasing use of biodegradable PLGA polymers for drug encapsulation and formulation of controlled release preparations has created a market for easy-to-use, ready-to-go microfluidic solutions. These solutions simplify the workflow for researchers, Dolomite stated in a Nov. 10, 2020 press release.

The new NanoFabTx kits include a microfluidic chip, holders, and accessories, along with application data for the production of a variety of particle types and sizes. To use the kit, simply connect it to the pumps and start the application, Dolomite noted in its press release. This microfluidic approach is user-friendly and offers better encapsulation efficiency and higher monodispersity than traditional methods.

The kit offers the benefit of particle isolation (for particles of the correct dimensions) without wasteful filtering, which ensures the tight control of particle size and shape that is essential to regulating the speed of drug delivery and release. The new kits are intended for use with MilliporeSigma's NanoFabTx PLGA-Nano and NanoFabTx PLGA-Micro Reagent kits and are optimized for microfluidic pumps and software from Dolomite, to give high accuracy and consistency. The kits can also be combined with Dolomite's high throughput Telos technology

for scaled up experiments.

“MilliporeSigma chose Dolomite Microfluidics because of our reputation and many years’ expertise in providing excellent microfluidic solutions that deliver consistent and reliable production of particles. The controllability and reproducibility that microfluidics offers means the process is really finding its place in drug and vaccine development, making it the method of choice. We are looking forward to continuing our work with scientists to keep getting particles out there at the forefront of this area,” said Richard Gray, commercial director at Dolomite Microfluidics, in the press release.

Read the [original article](#) on PharmTech.