

SGI-DNA Launches Vmax™ X2, the Most Innovative Product in the Competent Cells Market Since the Discovery of *E. coli*

Pioneering synthetic biology company, SGI-DNA, releases a new protein expression system, accelerating research into vaccines and personalized medicines by delivering up to 4x more soluble protein than traditional *E. coli* methods in half the time

SAN DIEGO, California — January 31, 2020

SGI-DNA, creators of the BioXp™ 3200 System and Gibson Assembly® Reagents, has launched Vmax™ X2 Competent Cells, designed to generate two to four times more soluble protein in half of the time of current methods reliant on *E. coli*.

Derived from the fastest-growing, gram-negative, non-pathogenic marine bacterium, *Vibrio natriegens*, Vmax™ cells grow twice as fast as *E. coli* and generate significantly greater amounts of biomass and protein per volume of cells. With Vmax cells, researchers save a day or more in reaching protein purification and analysis, as well as increasing overall flexibility and performance of microbial protein expression systems.

“We need to empower leading researchers with tools and systems that enable them to work as quickly and efficiently as the pathogens and viruses we’re seeing in the world today,” said Todd Nelson, Ph.D., CEO of SGI-DNA. “Vmax X2 builds significantly on the real world applications and customer needs from its progenitor, Vmax™ Express, to deliver the most robust expression, growth, and ease of use of any bacterial competent cells to date.”

“We believe Vmax X2 will allow for expanded experimentation and faster advancements towards vaccines, cancer treatments, and other immunotherapies. Because traditional *E. coli* protein expression strains like BL21(DE3) have always been limited in yield and capabilities, we believe Vmax X2 will allow researchers to say goodbye to *E. coli* for good,” said Dan Gibson, Chief Technology Officer.

Not only does it have the best speed and yield of any bacterial protein expression system, with a doubling time of approximately 14 minutes and twice the maximum biomass of *E. coli*, Vmax X2 also provides the easiest and most flexible workflow available. With a tightly controlled IPTG-inducible T7 promoter system, Vmax X2 cells can be cultured using routine growth media, commercial auto-induction media, or SGI-DNA's optimized Vmax™ Enriched Growth Media. Uniquely, Vmax cells can be induced much earlier in growth and at any time between an OD₆₀₀ of 0.1 to over 1.0 without a loss of final protein yield, dramatically increasing workflow flexibility.

"When you have a virus, such as the coronavirus, that spreads exponentially daily, saving a day or more on the bench is absolutely critical," said Gibson. "Vmax cells not only help researchers on the front lines save time, but they can also help optimize the process as they naturally have 100-fold lower endotoxin levels, making them an ideal host system for vaccine research."

"Revolutionizing synthetic biology is the mission of SGI-DNA," said Nelson. "But it's a mission we can't take on alone. Providing researchers with easy and immediate access to disruptive technologies and solutions — such as our latest version of Vmax cells, the pioneering BioXp 3200 System, and, of course, the Gibson Assembly® Method and reagents created by Dan Gibson, my colleague, and co-founder — is, we believe, foundational to fulfilling our mission."

For more information on the BioXp™ 3200 System and its applications, visit www.sgidna.com.

The Gibson Assembly® Method is also available under commercial license. For more information,



About SGI-DNA

At SGI-DNA, our mission is to develop revolutionary synthetic genomics platforms that accelerate advances in drug discovery, precision medicine, DNA data storage, and industrial design; bridging the gap between the digital and biological worlds. For more information, please visit www.sgidna.com.

Contact Us

Ruth Petersen
Director of Marketing, SGI-DNA
rpetersen@sgidna.com
(858) 754-2979