

PRESS RELEASE

ProBioGen was Granted a New Patent for DirectedLuck® Transposase Technology

Berlin, Germany - December 14th, 2023

ProBioGen announced today that the Japan Patent Office (JPO) issued the first patent for the company's DirectedLuck® technology. The powerful gene delivery system is based on a highly active transposase fusion variant that enables epigenetic targeting and a carefully designed transposon.

This cutting-edge technology provides bulk pools that not only achieve titers of up to 13 g/L for different antibody formats but also exhibit exceptional expression stability over more than 50 population doublings. This makes these pools well-suited for large-scale manufacturing.

“This patent grant is an important milestone for this innovative cell-engineering technology. The plug-and-play system delivers its benefits across the entire biopharmaceutical value chain and enables speed to the clinic.” said Dr. Volker Sandig, CSO of ProBioGen. “Thanks to our DirectedLuck® technology, clients achieve higher titer and maximum stability at the shortest timelines.”

DirectedLuck® has been successfully applied at ProBioGen to generate hundreds of producer cell lines for clients and is endorsed by ProBioGen's licensees. In addition, DirectedLuck® can be used to create stable packaging cell lines for viral vectors and in gene and cell therapy.

About DirectedLuck®

DirectedLuck® builds on a transposase's principle but with additional major improvements. It has been optimized to recognize specific chromatin marks, guiding the transgene to genomic regions with highest transcriptional activity, which ensures exceptionally high protein expression and maximum stability. The clone pools generated within days to weeks are highly representative of later clones. This reduces time and hands-on lab work for selecting superior clones for best titers, proven stability and product quality. The DirectedLuck® Transposase is compatible with additional genetic elements in standard expression vector design and can be used with any host cell line from different species and tissue origin. DirectedLuck® has been applied to develop cell lines for standard mAbs, complex glycoproteins and bispecifics and is also applicable beyond protein and virus production in cell and gene therapy.

DirectedLuck® is available for out-licensing. Furthermore, ProBioGen applies DirectedLuck® as a standard tool in clients' service projects at no extra charge.

About ProBioGen

ProBioGen is a premiere, Berlin-based specialist for developing and manufacturing biopharmaceutical active ingredients, viral vectors and vaccines with applying proprietary technologies to improve product quality and features. Combining both state-of-the-art development services, together with intelligent product-specific technologies yields biologics with optimized properties. Rapid and integrated cell line and process development, comprehensive analytical development and GMP-compliant manufacturing is performed by a highly skilled and experienced team. All services and technologies are embedded in a total quality management system to assure compliance with international ISO and GMP standards (EMA/FDA).

ProBioGen has been operational for almost 30 years. At four locations in Berlin, over 300 employees contribute to the creation of new therapies in medicine and groundbreaking innovations worldwide through their creative and meticulous work. ProBioGen's growth strategy is driven by the expansion of the service value chain through organic growth and potential acquisition. Diversification is a complement driver, while the focus is strict on enabling the development of biopharmaceuticals for tomorrow.

For more information about ProBioGen, follow us on [LinkedIn](#).

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