ProBioGen
Intelligent Biopharmaceutical Solutions

PRESS RELEASE

DirectedLuck, a Transposase for Efficient Gene Delivery and High-Titer Cell Line Development

Berlin, Germany, November 12th, 2019: ProBioGen AG, a premier German service & technology provider for complex biologics, today announced the launch of DirectedLuck, a highly active transposase equipped for specific epigenetic targeting. It directs transgene cassettes to most active promoter regions in a given cell inserting multiple copies independently. The technology was first presented by ProBioGen's CSO Dr. Volker Sandig during his ESACT Innovation Award Lecture in May 2019.

Typical cell line development relies on the integration of plasmids in a random fashion at spontaneous breaks. Best integration events occur as a matter of luck and winning clones are identified in extensive screens. Sequence-optimized Transposases mediate integration of desired expression units at multiple open sites and are known to facilitate cell line generation in many ways.

ProBioGen's Transposase builds on this principle but it is uniquely enabled to read specific chromatin marks signaling highest transcriptional activity. Indeed, foreign genes are DIRECTED to a multitude of such sites where they still insert randomly, allowing optimal transcript levels for the protein to be expressed. The result is an unparalleled consistency of clone pools with highest productivity that translates into superior producer clones with exceptional expression stability and a fast, robust development process. Because clone pools are highly representative for the clone to be selected later on, they can be used to manufacture material for development of a purification process, for formulation and formal toxicity studies, reducing overall timelines to the clinic.

"This technology is particularly suited for applications requiring introduction of multiple genes expressed at precisely defined ratios: bispecific antibody producer lines with highest heterodimer content and potent stable cell lines that release Adeno-associated Viruses and Lentiviruses. The DirectedLuck Transposase allows reliable comparison of drug candidates with respect to manufacturability making it an additional risk mitigation tool", said Dr. Volker Sandig, CSO of ProBioGen.

"Again, ProBioGen has demonstrated, that the combination of its unique technology portfolio as well as cell line development and GMP manufacturing services brings added value to the customers." said Dr. Wieland Wolf, CEO of ProBioGen.

The DirectedLuck technology is used for in-house development projects for clients and is also available for out-licensing.

About ProBioGen AG

ProBioGen is a premier, Berlin-based specialist for developing and manufacturing complex therapeutic antibodies and glycoproteins, viral vectors and vaccine technologies. Combining both state-of-the-art development services, based on ProBioGen's CHO.RiGHT™ expression and manufacturing platform, together with intelligent product-specific technologies yields biologics with optimized properties. Rapid and integrated cell line and process development, comprehensive analytical development and following reliable GMP 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 was founded 1994, is privately owned and located in Berlin, Germany.

For additional information, please visit ProBioGen's website, www.probiogen.de.

Contact ProBioGen AG:
Dr. Gabriele Schneider
Chief Business Officer
ProBioGen AG
Herbert-Bayer-Str. 8
13086 Berlin, Germany
Phone: +49 (0)30 3229 35 100
Email: cmo@probiogen.de
Website: www.probiogen.de