

## Press Information

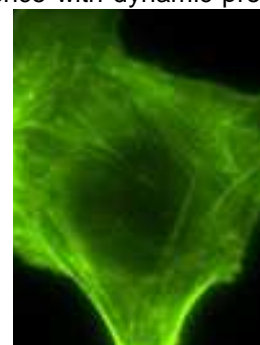
21 March 2012

# More effective drug screening now possible with in vitro cell models that come with their own reporter genes

## SIRION BIOTECH launches SenCELL™ at Bio-Europe Spring in Amsterdam

**Munich, Germany, SIRION** Biotech presents its new line of products under the new SenCELL™ brand for functionality testing in stable in vitro cell systems.

An example is SenCELL LifeAct™ representing a range of First in Class Sensor Cell Lines with sensor molecules that identify actin dynamics and at the same time show no interference with dynamic processes during cytoskeleton rearrangements. In detail, SenCELL LifeAct™ express a small actin binding protein domain coupled to a fluorescent protein. This way, live cell imaging and high content analysis are now applicable to a wide variety of assays including migration assays using chemoattractants. The cell lines are functionally validated, available in bulk and shipped in frozen cell stocks. Applicable in a matter of days.

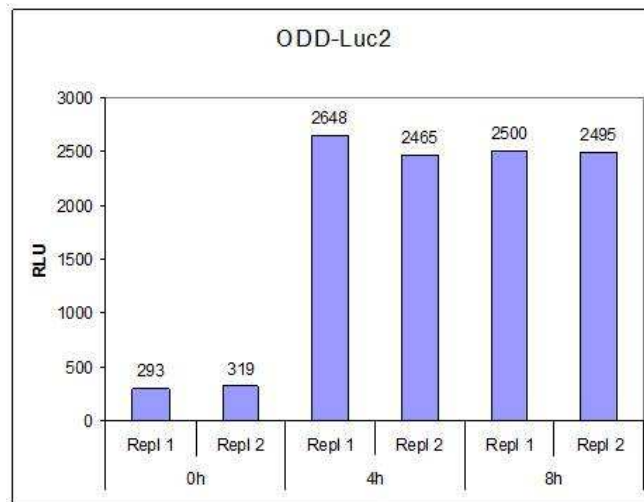


Initial ready-to-use SenCELL LifeAct™ are already commercially available: LifeAct HT1080 and soon LifeAct MDCK . The picture is showing a A549 cell, transduced with rAVCMV-LifeAct-TagGFP2 (green) - courtesy of ibidi - cells in focus .

Another even quite common example is SenCELL Hypoxia™ - a reporter cell line system for in vitro imaging of hypoxia: hypoxic microenvironment is coincidental with the development and therapy resistance of tumors, hence, studying hypoxia remains a focus in oncology research. SenCELL Hypoxia is taking advantage of the selective induction of the hypoxia induced transcription factor HIF1A.

A luciferase reporter gene is fused to the oxygen dependent degradation (ODD) domain of HIF1A (ODD-Luc2). Thus, under normoxic conditions luciferase is constantly posttranscriptionally modified followed by proteasomal degradation. Short half-life reporter protein of just 6 minutes gives the researcher fast & dynamic readout. It also provides a rapid response to hypoxia mimetics, proteasome inhibitors and prolyl hydroxylase inhibitors.

Example: generation of an ODD-Luciferase colon cancer reporter cell line by lentiviral transduction; hypoxia induction using cobalt chloride, result: Chemoluminescence is highly induced after CoCl<sub>2</sub> treatment in ODD-Luciferase overexpressing cell line ODD-Luc2



Luciferase activity determined using "Steady Glow Luciferase Assay" by Promega

### **About SIRION BIOTECH**

SIRION BIOTECH GmbH is a biotech company that produces genetically modified cells and is a technology provider in the area of viral vector systems. The company was founded in 2006 and is located in Martinsried near Munich. The expert in RNAi technology offers a wide range of more than 100 products and services. Using state of the art techniques and assay systems the company offers reliable lead-through service projects in target validation, screening and drug discovery.

With its strong expertise in cell line development SIRION BIOTECH serves as a partner for the development and optimization of cell lines for various applications like cellular assay systems and the production of vaccines or antibodies.

SIRION BIOTECH currently operates projects for most of the major pharmaceutical companies in Europe and has ongoing collaborations with leading academic and governmental research institutes. A US New Hampshire based office has just been opened.

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