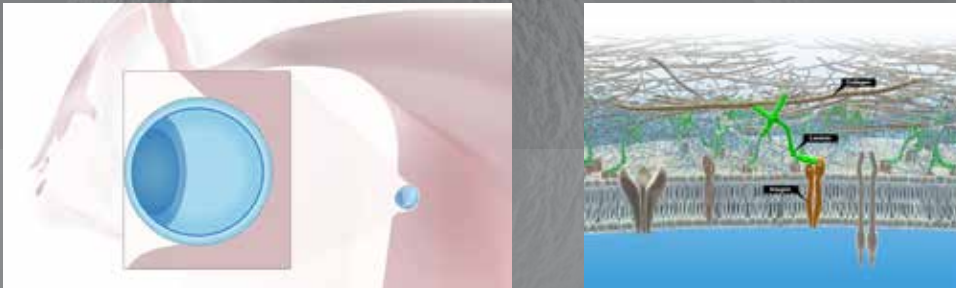
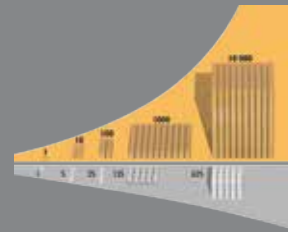
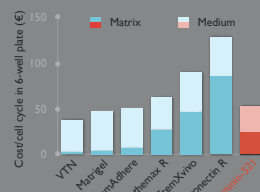
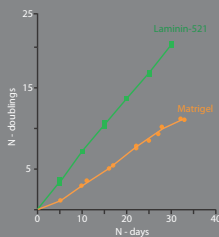
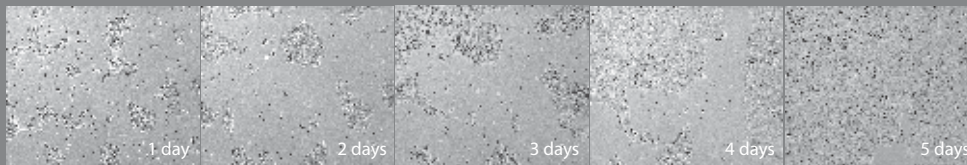


LN-521™ REPLICATES THE NATURAL NICHE FOR HUMAN PLURIPOTENT STEM CELLS IN VITRO



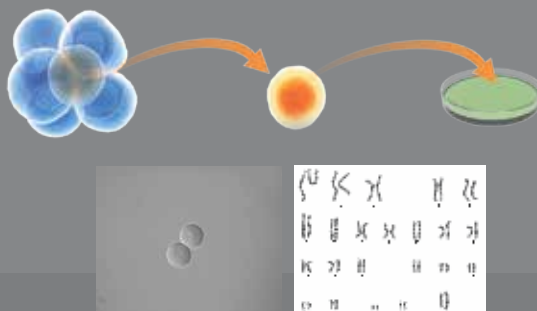
Laminins are a group of 16 proteins found in the basement membrane in the extracellular matrix. All stationary cells make close contact to the extracellular matrix where laminins are the only proteins with a tissue-specific distribution. Laminins are essential for proper function of the cells. Laminin-521/511 are the first matrix proteins expressed during development by pluripotent stem cells in the inner cell mass of the blastocyst. By culturing human PSCs on the same protein as in vivo, the cells remain pluripotent, expand quickly and do not genetically drift.

LN-521™ PROMOTES ROBUST LONG-TERM SINGLE-CELL PASSAGING OF HUMAN PSCs - TIME AND COST-EFFECTIVE WITH STABLE KARYOTYPES



Pluripotent human PSCs seeded as single cells on LN-521™ grow as a homogenous monolayer without any spontaneous differentiation or the need to use apoptosis inhibitors for survival. Human PSCs are pluripotent and karyotypically normal long-term in vitro, enabling easy and automated processes for robust cell expansion. The biorelevant LN-521™ allows twice the expansion rate compared to Matrigel. Due to the fast growth rate, half the amount medium is needed. Taken together this saves money with every propagation and experiment.

LN-521™ ENABLES EFFICIENT BLASTOMER DERIVATION OF NEW HUMAN ESC LINES



With LN-521™ together with e-cadherin it is now possible to both clonally expand human PSCs and to derive both iPSCs and hESC lines efficiently. Human ESC lines can even be derived using a single blastomer, which preserves the embryo and circumvents ethical dilemmas. The newly derived hESC lines are karyotypically normal and are considered clinical grade cells.

LN-521™ KEY ADVANTAGES

- Defined and xeno-free
- Long-term, efficient expansion
- Easy single-cell passaging
- Without need of ROCKi
- Robust monolayer culture
- Biorelevant
- Cells pluripotent for >130 passages
- Maintained genetic integrity
- Cost-efficient
- Scientific high-impact publications
- Scalable culture for automation
- Scientific high-impact publications

