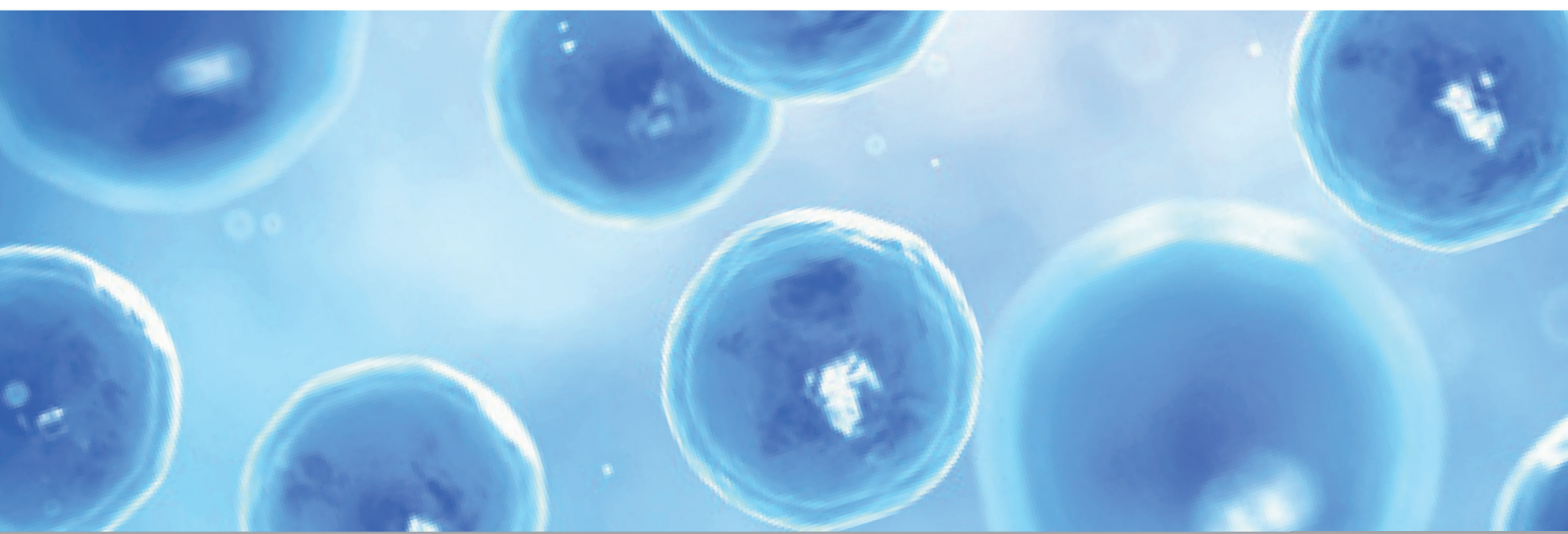


LN-511

LIF INDEPENDENT MURINE STEM CELL EXPANSION



LN-511 ENABLES MOUSE ES CELLS SELF-RENEWAL IN THE ABSENCE OF DIFFERENTIATION INHIBITORS

Laminin-511 (LN-511) provides a defined and biologically relevant substrate for pluripotent mouse stem cells without the need to add differentiation inhibitors, such as leukemia inhibitory factor (LIF), to the culture medium.

Laminin-511 is the first extracellular protein to be expressed during development. Mouse ES cells adhere with about fivefold higher affinity to LN-511 compared to other matrices. Hence, LN-511 acts as the natural niche for mESC, supporting monolayer growth of cells and ensuring uniform experimental results.



KEY ADVANTAGES

- **Defined and xeno-free long-term propagation of mouse ES/iPS cells**
- **Easy and reliable single-cell passaging for standardization and automation**
- **Biorelevant matrix support eliminates the need for LIF**
- **Can be manufactured according to cGMP**
- **Biologically relevant**
- **Scientifically proven**

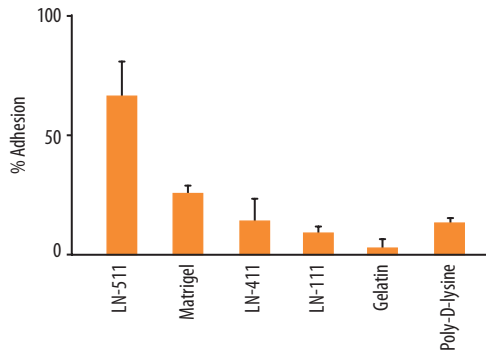


Direct link to LN-511 information online



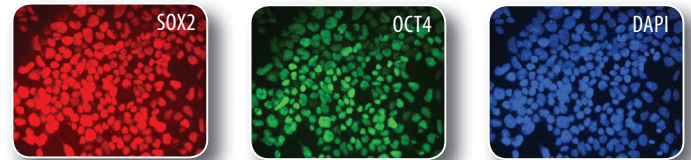
MOUSE ES CELLS HAVE HIGH AFFINITY FOR LN-511

Mouse ES cells adhere to LN-511 with about three- to fivefold higher affinity compared to other commonly used matrices. Values are shown as average percentage of cells attached ($n=3$).



MOUSE ES CELLS RETAIN PLURIPOTENT CELL MARKER EXPRESSION ON LN-511

Pluripotent mouse ES cells grow as monolayers on top on LN-511. All cells have equal contact with the matrix and medium, creating a homogeneous cell population.



GERMLINE TRANSMISSION OF LN-511 CULTURED MES CELLS

Mouse ES cells cultured on LN-511 stay pluripotent for >3 months, verified by their ability to generate chimeric mice, when injected into mouse blastocysts and implanted into pseudopregnant mice.



REFERENCES

Domogatskaya A, Rodin S, Boutaud A, Tryggvason K. Laminin-511 but not -332, -111, or -411 enables mouse embryonic stem cell self-renewal in vitro. *Stem Cells*. 2008; 26:2800-2809.

Miner JH, Li C, Mudd JL, Go G, Sutherland AE. Compositional and structural requirements for laminin and basement membranes during mouse embryo implantation and gastrulation. *Development*. 2004;131(10):2247-2256.

Klaffky E, Williams R, Yao CC, Ziober B, Kramer R, Sutherland A. Trophoblast-specific expression and function of the integrin alpha 7 subunit in the peri-implantation mouse embryo. *Dev Biol*. 2001;239(1):161-175.

✉ KEEP IN TOUCH
TEL: +46-8-5888 5180
EMAIL: SALES@BIOLAMINA.COM

📍 BIOLAMINA AB
LÖFSTRÖMS ALLÉ 5A
STOCKHOLM, SWEDEN

BioLamina products are
for research use only

www.biolamina.com

BIOLAMINA - REVOLUTIONIZING CELL CULTURE