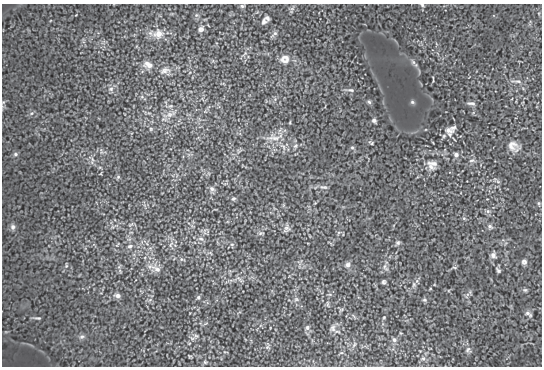
denovoMATRIX
ENABLING BIOLOGY IN VITRO

myMATRIX iPSC
BIOMATRICES FOR CELL CULTURE

Information sheet

denovoMATRIX develops and manufactures biomatrix coatings that enable the culture of a wide variety of primary, stem and established cell lines. In vivo, extracellular matrix (ECM) molecules surround individual cells with essential roles in regulation of adhesion, differentiation, migration, phenotype, organization and structure. Our myMATRIX coatings recapitulate these major functions of the natural ECM, making cell culture easy, robust, and biologically relevant.



ROBUST PROLIFERATION & MORPHOLOGY

- iPSCs on myMATRIX show typical colony morphology with high nuclear-to-cytoplasmic ratio
- iPSCs proliferate robustly and fast over 150 days in culture
- myMATRIX supports iPSC growth at high as well as low splitting ratios up to clonal densities

KEY FEATURES

- Chemically-defined and animal-free
- Ready-to-use and easily adaptable
- Reliable and robust performance
- Mimics microenvironment functions
- Tailored for human iPSC culture
- High-quality iPSCs
- Strong proliferation and typical iPSC morphlogy
- Supporting consistent and high expression of stemness markers during long-term iPSC culture
- Preservation of pluripotency and genetic stability during long-term culture and throughout different culture methods

We qualified myMATRIX iPSC in long-term experiments and published the data in a white paper.

Keep in touch!
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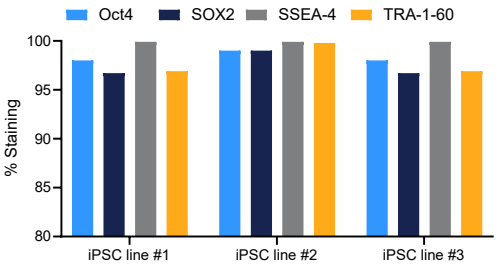
CAPTIVATE BIO™

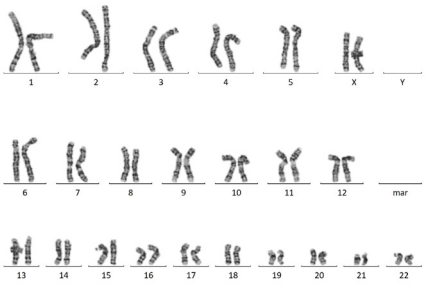


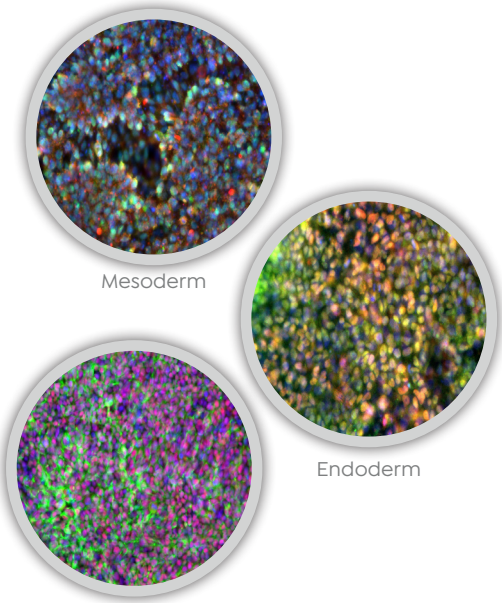
STEMNESS

- Surface-antigen expression patterns of iPSCs cultured on myMATRIX iPSC show high expression of pluripotency markers as analyzed by Fluorescence-activated cell sorting (FACS)
- iPSCs on myMATRIX show high expression of a series of iPSC-specific genes such as OCT4, Nanog, Sox2, FGF2 and Lin28 throughout the culture estimated by quantitative RT-PCR (see white paper)

GENETIC STABILITY

- iPSCs cultured on myMATRIX iPSC are genetically stable.
- Normal, healthy karyotypes after longterm culture of 20 passages.





DIFFERENTIATION CAPACITY

- iPSCs on myMATRIX maintain their differentiation potential and therefore, form all three germ layers after long-term culture
- Cells were differentiated after 20 passages in culture
- Differentiated cells (DAPI, blue) and germ layer-specific marker expression were visualized by immunostaining:
  Mesoderm – Brachyury (green), CXCR4 (red)
  Endoderm – GATA6 (green), Sox17 (red)
  Endoderm – Nestin (green), Pax6 (red)