VitroScreen ORA
A Visionary Future of Human Health

ENDOMETRIUM

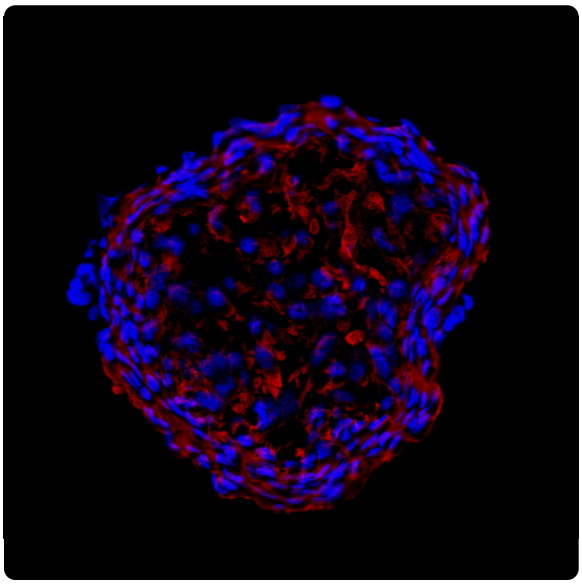
Micro-physiological 3D endometrium system mimics the physiological tissue architecture in healthy condition in terms of compartment organization and cells interactions.

The three-dimensional configuration simulates the natural microenvironment allowing primary cells to recapitulate the native tissue features. Due to the highest biological relevance, the model responds to sexual hormones stimulation as estradiol and progesterone at different doses mirroring the phenotypical changes of tissue during different phases of menstrual cycle.
Receptivity for embryo implantation (customized system).

Cell source:
T-HESC as endometrium stromal fibroblasts and HEC-1A as epithelial compartment seeded in sequential co-culture.

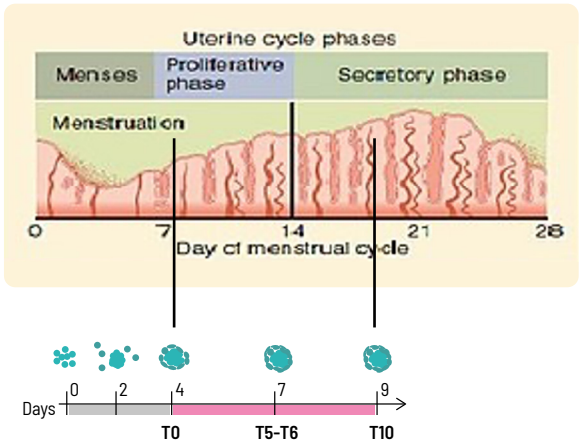
Shelf life:
up to 2 weeks

Relevance:
in physiological conditions of culture, VitroScreen ORA® endometrium expresses specific endometrial morphological biomarkers (vimentin, CK7, ITGb1, CDH and ki67) and exhibites a secretory profile (LIF, VEGF, IL-1β, IFN-γ) mirroring a physiological response after exposure to sexual hormones (estradiol and progesterone).



VIMENTIN Nuclei

PHYSIOLOGY OF ENDOMETRIUM



Articles

Elisa Caviola, Marisa Meloni
Next-generation of in vitro 3D human tissue models for preclinical applications in life sciences: application to reproductive biology
Current Trends in Clinical Embryology 2017; 4 (3):118-124

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