

CARTILAGE

Cartilage system mimics the natural human cartilage in terms of cells organization, cellular metabolism and *de-novo* extracellular matrix deposition during the re-differentiation.

The system can be produced with donors of different ages and in presence of degenerative arthrosis recapitulating phenotypical features of native cartilage and it expresses key biomarkers of differentiation.

Applications

- Differential response to cartilage regeneration in stress/pro-inflammatory conditions
- To investigate the regenerative capacity of chondrocytes
- Hypoxia conditions and mechanical properties modifications
- Chronic inflammatory disease and metabolic profiling
- Metabolic studies: cartilage degradation and regeneration

Cell source:

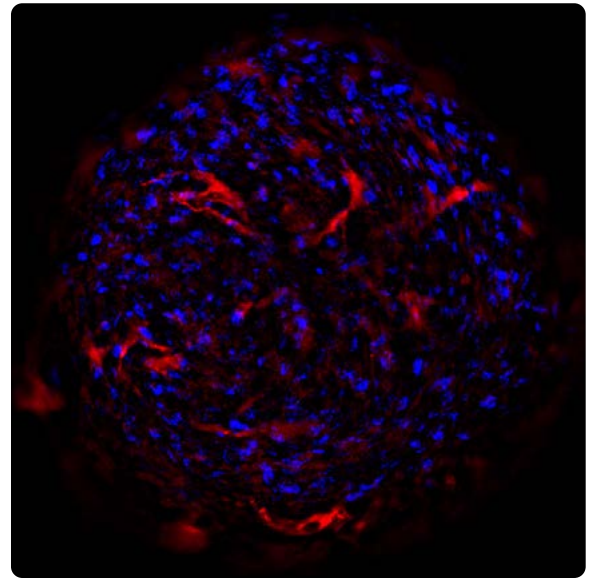
human primary Chondrocytes

Shelf life:


15-20 days

Relevance:

mature Spheroids express Collagen type II crucial for architecture assembly of endogenous ECM and S100 that regulates the chondrocytes activity and increased tissue responsiveness to regeneration and repair after a damage.



 S100

 Nuclei

Posters

Marisa Meloni and Francesca Rescigno
Scaffold-Free Cartilage Spheroids Model: Application to Investigate Chondrocytes Regenerative Capacity
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