

ORTE®

Poly-L-Lactic Acid (PLLA)

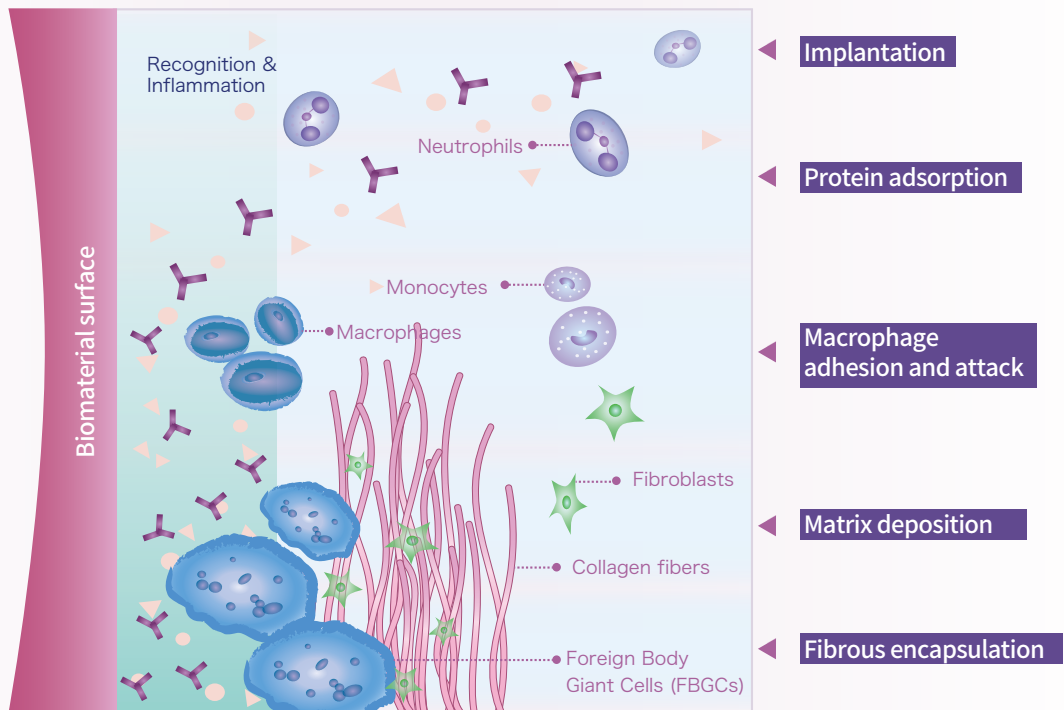
Polycaprolactone (PCL)

Tissue Regeneration  
& Reconstruction  
Biodegradable Polymers

PLLA is a polymer synthesized from lactic acid as the primary raw material and belongs to the polyester family. PCL is a polymer obtained through ring-opening polymerization of  $\epsilon$ -caprolactone with a metal organic compound, such as tetraphenyltin, as the catalyst, and it also belongs to the polyester family.

Both polymers have been primarily utilized in various medical fields, including surgical sutures, dentistry, ophthalmology, controlled drug release systems, artificial skin, artificial blood vessels, fillers for bone and soft tissue defects, and bioresorbable scaffolds.

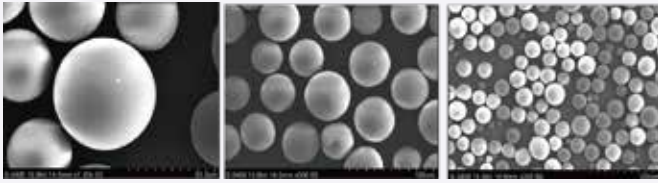
Mechanism of action



Size (D50)	PCL	PLLA	PDLA
20 $\mu$ m	ORTE® PC-S20	ORTE® PL-S20	ORTE® PDL-S20
40 $\mu$ m	ORTE® PC-S40	ORTE® PL-S40	ORTE® PDL-S40

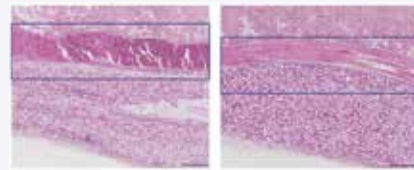
## 1. Stable Settling Into Tissue

Structural design according to the application  
→ Uniform size and smooth spherical surfaces



## 2. Ideal Biomaterial

Smooth surface & Optimal size  
→ Low inflammation and biological response



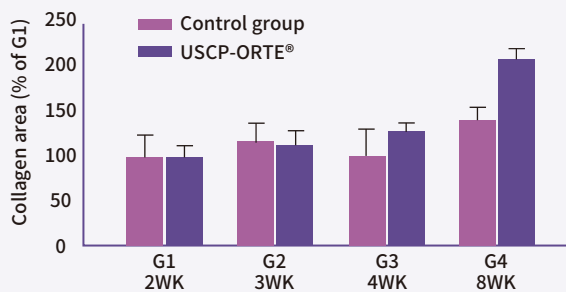
Control group

USCP-ORTE®

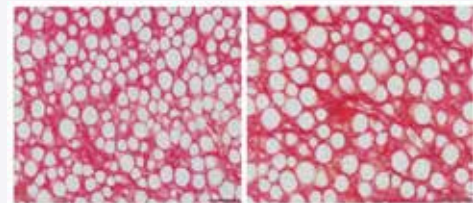
## 3. Excellent Tissue Regeneration

Maintain tissue volume & Promotes collagen regeneration

Excellent collagen regeneration effect compared to the control



The darker the color, the higher the collagen production



Control group

USCP-ORTE®

## 4. Safe & Histocompatibility

Use of biodegradable polymers (medical grade), robust raw material management system and endotoxin reduction technology



Non-toxicity & high safety  
Non-irritation & good biocompatibility

## 5. Formulation R&D Platform

Composed of various types of products by combining USCP platform technology



Prefilled Syringe



Lyophilized Powder



**Application: Dermal fillers by stimulating tissue regeneration and reconstruction**



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