

Extracellular Bone Matrix

PORCINE-DERIVED, COLLAGENATED BONE SUBSTITUTE
FOR ORTHOPEDICS APPLICATIONS

NG Bone Extracellular Bone Matrix is a porcine-derived xenograft with structural and biological properties **that resemble human bone tissue**, making it an excellent alternative to bank allografts.

One unique advantage of this biomaterial is its consistent performance and reproducibility, as it is sourced from healthy, young, and controlled animals, ensuring uniform tissue properties.

The NG Bone Extracellular Bone Matrix is obtained through a rigorous and meticulous tissue purification process, which removes antigenic components from the native porcine bone matrix while preserving its natural three-dimensional structure of collagen and hydroxyapatite.

The presence of collagen and hydroxyapatite in their native state, along with the preservation of the natural micro and macropores of the original bone matrix, gives it excellent **osteoconductive** properties, reducing bone remodeling time.

Features

• Natural Biological Structure

Supports cellular growth and tissue organization for regeneration.

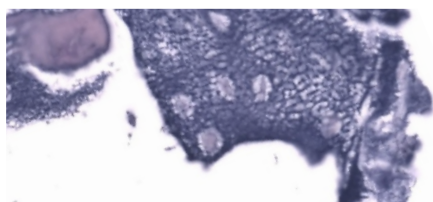
• Faster Bone Regeneration

Specialized cells (osteoblasts, osteoclasts, and regenerative macrophages) are attracted to the injury site by collagen-mediated signaling.

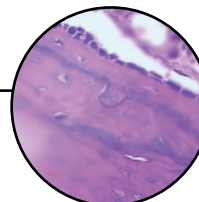
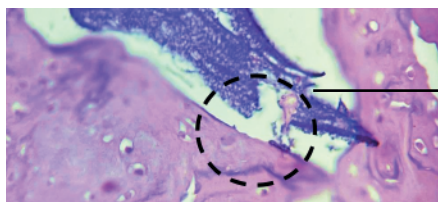
Applications

- Bone defect filling post-tumor resection
- Vertebral arthroplast
- Prosthesis revision
- Orthopedics
- Osteotomy

Analysis

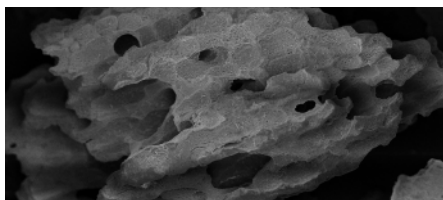


Microscopic characteristics of NG Bone Extracellular Bone Matrix particles (*): Cancellous appearance with internal cavities; surface features initial signs of resorption.

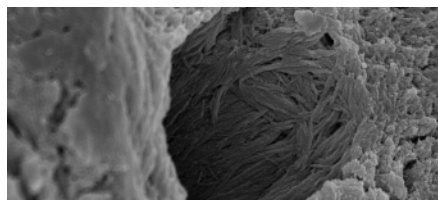


*Osteoblasts present on the surface of the NG Bone Extracellular Bone Matrix particle.

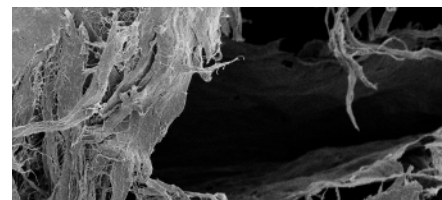
Micrographs



20 µm | Extracellular Bone Matrix Particle



2 µm | Extracellular Bone Matrix Pore



10 µm | Native Collagen Evidence in Extracellular Bone Matrix



70%-30%

70% HYDROXYAPATITE
30% NATIVE COLLAGEN

Porcine-derived extracellular bone matrix

Presentation Particle Sizes*

| | |
|-------|------------|
| 5 ml | G |
| 10 ml | G, EG |
| 15 ml | G, EG |
| 30 ml | G, EG, EGC |
| 50 ml | EGC |

* G = 1000-2000 µm, EG = 2000-4000 µm, EGC > 4000 µm

Presentation in Blocks

- Cancellous Block:
20 x 20 x 10 mm y 20 x 10 x 10 mm
- Cortical-cancellous Block:
20 x 20 x 5 mm, 20 x 20 x 10 mm,
20 x 20 x 10 mm, 20 x 10 x 10 mm