SPARC™
INTEGRATIVE BONE MATRIX

ADVANCED ALLOGRAFT TECHNOLOGY

A NEXT-GEN **INTEGRATIVE BONE MATRIX™**

isto BIOLOGICS

PRESERVE **WITHOUT SACRIFICE.**

We get it. When autograft isn't the most viable option for a fusion, you're used to picking the next best thing... likely at the expense of something you actually need. What if there was a bone graft that could give you everything required for bone growth while sacrificing nothing?

Meet SPARC - the first **Integrative Bone Matrix™ (IBM)**. In a category of its own, the IBM incorporates all healing modalities with no sacrifice.

Taking an integrative approach to bone healing means looking at all the individual facets of the process and incorporating them into one holistic approach. With this in mind, SPARC was designed to **maintain everything that's important in a graft— scaffold, signal, and cells— without sacrificing any key components in the process.**

+ **OSTEOCONDUCTIVITY** - FIBER SCAFFOLD

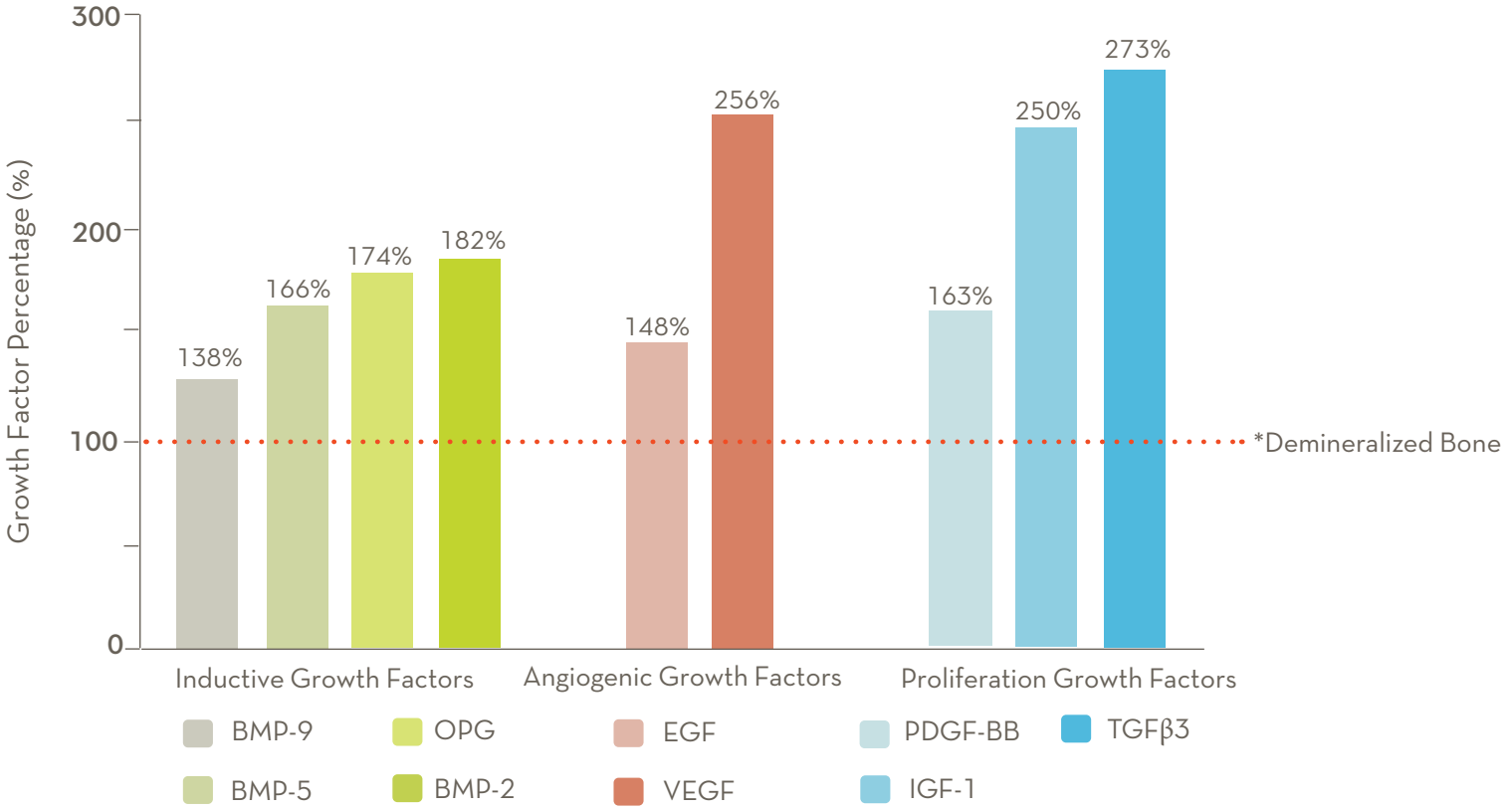
SPARC utilizes a fiber DBM that provides improved handling and increased osteoconductive scaffold over particulate DBM.[1] The collagen fiber structure provides a natural scaffold for cell migration and attachment.

+ **OSTEOINDUCTIVITY** - RESTORED SIGNAL

SPARC undergoes advanced processing to improve osteoinductivity at the surgical site by restoring native growth factors back into the product. While other grafts typically discard the growth factors from bone lining cells during graft preparation, SPARC's proprietary processing allows for growth factors to be preserved and available for contribution of signaling for bone growth.

The concert of native growth factors found in SPARC include those that can promote induction, angiogenesis, and scaffold proliferation and integration. High levels of natural growth factors found in SPARC, including several Bone Morphogenetic Proteins (BMPs), VEGF, EGF and TGFβ3, are some key contributors for the formation of bone.[2]

SPARC PRESERVES GROWTH FACTORS[1]



+ OSTEOGENICITY - VIABLE CELLS

SPARC's osteogenic properties promote the proliferation and differentiation of viable osteoprogenitor cells that can facilitate the regeneration of bone tissue.

+ EASE OF USE - RAPID PREPARATION

SPARC comes in a ready-to-use syringe, with a simple and safe thaw time of under 10-minutes. SPARC's DMSO-free cryoprotectant protects the cell membranes when frozen, assuring viable cells that can last up to 5-hours post-thaw. There is no need for decanting or washing the graft prior to implantation. Simply thaw and implant.

WHY CHOOSE SPARC ?

Influx™ SPARC is an integrative bone matrix with a high concentration of preserved growth factors for use in bone repair or reconstruction.

1. FIBERS

+ Cortical fibers have undergone a demineralization process
+ Contribute highly conductive, natural scaffold for new bone generation[2]
+ Offer exceptional handling

2. GROWTH FACTORS

+ Cortical fiber DBMs provide high quality osteoinductive signal[3]
+ Additional growth factors are captured from bone lining cells and restored within the final product

3. VIABLE CELLS

+ Osteogenic properties within the product promote the fueling of new bone growth

4. EASE OF USE

+ 10-minute thaw time in room temperature water bath
+ DMSO-free: immediately implantable upon thawing in a ready-to-use syringe

For more information, schedule a SPARC case with your Isto sales representative, call customer service at 888.705.ISTO, or visit istobio.co/sparc.

OFFERED IN **MULTIPLE SIZES**

Product Size	Product Code
1cc	IFLX-CM-01
2cc	IFLX-CM-02
5cc	IFLX-CM-05
10cc	IFLX-CM-10
15cc	IFLX-CM-15

Processed and distributed by DCI Donor Services - Tissue Bank.

Reference: **1.** Martin, GJ Jr. et.al. (1999) New formulations of demineralized bone matrix as a more effective graft alternative in experimental posterolateral lumbar spine arthrodesis. Spine. 24(7):637-645 Data on file, Advanced Biologics • **2.** Data on file, Advanced Biologics • **3.** Urist, M.R. (2009). The Classic: A Morphogenetic Matrix for Differentiation of Bone Tissue. Clin Orthop Relat Res. 467:3068-3070.

Disclaimer: Influx™ SPARC is a line of human tissue products which meet FDA regulations governing tissue-based products under 21 CFR Part 1271. It is not combined with a drug, medical device, or carrier. The regulatory classification is analogous to that of allograft chips, blocks, or strips. Influx™ SPARC does not involve culturing cells, capital equipment. purchase, or intraoperative processing.

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