

Directions for Use
CytoSilk®
LYOPHILIZED SILK FIBROIN
Catalog Number #5352-1GM

Product Description

Advanced BioMatrix offers lyophilized Silk Fibroin protein derived from the domesticated *Bombyx mori* silkworm. The powder can be reconstituted at various concentrations and used for coatings, films, sponges, hydrogels, and electrospun fibers.

Fibroin protein is the major structural component of the silkworm's cocoon fiber. Fibroin offers great potential for use in medically related applications due to the high degree of biocompatibility and lack of immune response when implanted within the body. The silk fiber can be solubilized into an aqueous fibroin solution, which can then be used as an additive in culture or for producing 3D scaffolds for tissue-engineering applications.

Product Parameters

Parameters, Testing and Methods	Silk Sericin # 5429
Form	Lyophilized Powder
Package Size	1 gram
Storage Temperature	-20°C
Purity – SDS PAGE Electrophoresis	Characteristic
pH	≥ 4.5
Source	Domesticated Bombyx Mori Silkworm
Osmolality (mOsmo H ₂ O/kg)	≤ 160
Molecular Weight (kDa)	100-150

Storage/Stability:

The product ships on frozen gel packs. Upon receipt, store the lyophilized silk at -20°C.

Preparation Instructions

Note: The following instructions are for a 5% Silk solution. It is recommended to reconstitute Silk Fibroin at concentrations between 1-10%.

1. To make a 5% stock solution, add 20 mL of sterile, deionized water to the bottle containing 1 gram of lyophilized silk.
2. Gently swirl to wet the silk cake fully. DO NOT vortex or agitate vigorously as this may cause the product to foam and gel. Let sit at 2-8°C and gently swirl the bottle every 15 minutes. Product should be fully in solution after 1 hour (or less).
3. Once in solution, product is ready to use. We do not recommend re-freezing the silk at this stage, but if absolutely necessary, unused solution should be frozen at -80C. Limit freeze-thaw cycles.