

Specification Sheet

Chitoink

Product description

Chitoink is a bioink based on chitosan that is a cationic polysaccharide extensively used in research related to cartilage tissue engineering. Formulated with a glucomannan thickener and a glycerol phosphate stabilizer to provide good printability and biocompatibility. Chitoink crosslinks easily with the included TPP Crosslinking Agent. For description on how to mix with cells, bioprint and crosslink, follow the **Bioprinting Protocol**.

Intended use

Biocompatible material for 3D bioprinting, **Research Grade**. For research use ONLY. Not intended for in vitro diagnostics or in vivo uses. Not intended for administration in humans or animals. Produced under aseptic conditions.

Product number

IKE10000

Shelf life

Chitoink: Minimum 1.5 months, expiration date stated on package.
TPP Crosslinking Agent: Minimum 1.5 months, expiration date stated on package.

Storage and handling

DO NOT FREEZE. Avoid temperature fluctuations.
Chitoink: Store and handle at 2-10°C. Ensure that the bioink container is capped prior to storage to prevent drying.
TPP Crosslinking Agent: Store at 2-10°C. Handling can be done at room temperature.

Safety

Handle in accordance with good hygiene and laboratory safety practices. Read **Safety Data Sheet** for more information regarding ingredients and potential hazardous compounds.

Related documents

Bioprinting Protocol as well as Safety Data Sheet can be downloaded from our website <https://www.cellink.com/product/chitoink/>.

Chitoink

Property	Specification	Method
<i>Appearance</i>	Semi translucent gel	Visual inspection.
<i>Sterility</i>	Sterile	Tested for the presence of bacteria, fungi and yeast with method adapted from Ph Eur 2.6.1 and USP <71>.
<i>pH</i>	6.5-7.4	Assessed with pH paper.
<i>Viscosity</i>	360-650 Pa·s at 1 s ⁻¹	Tested using HR-10 TA Instruments Rheometer with 20 mm plate-plate geometry. Steady-state rotational flow sweep: 25°C, shear rate from 0.001 s ⁻¹ to 200 s ⁻¹ .

TPP Crosslinking Agent

Property	Specification	Method
<i>Appearance</i>	Transparent liquid	Visual inspection.
<i>Sterility</i>	Sterile	Tested for the presence of bacteria, fungi and yeast with method adapted from Ph Eur 2.6.1 and USP <71>.
<i>pH</i>	7.4-7.6	Assessed with pH meter.