

Specification Sheet

CELLINK Vivoink

Product description

CELLINK Vivoink is a bioink based on medical grade natural components, tunicate nanocellulose and alginate, having predictable and reproducible printability and cell compatibility. CELLINK Vivoink crosslinks with the included CaCl_2 crosslinking agent. To maintain its mechanical stability throughout longer 3D cell culturing process, supplement cell media with calcium ions (minimum 1 mM). For description on how to mix with cells, bioprint and crosslink, follow the **Bioprinting Protocol CELLINK Vivoink**.

Intended use

Medical grade biomaterial for 3D bioprinting. For translational research use intended for scientists looking to begin their clinical journey and for current users of CELLINK Bioink. Produced under aseptic conditions in controlled manufacturing environment (EM, in process controls). Not for human use.

Product number

KTMG0315001

Shelf life

Expiration date stated on package.
CELLINK Vivoink bioink: minimum 3 months upon receipt.
 CaCl_2 crosslinking agent: minimum 3 months upon receipt.

Storage and handling

DO NOT FREEZE. Avoid temperature fluctuations.
CELLINK Vivoink bioink: Store at 4-8°C. If opened, ensure that the bioink container is capped prior to storage to prevent drying.
 CaCl_2 crosslinking agent: Store at 4-25°C.

Safety

Handle in accordance with good hygiene and laboratory safety practices. Read the **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.

CELLINK Vivoink bioink:

Property	Specification	Method
<i>Appearance</i>	White semi-translucent gel	Visual inspection.
<i>Sterility</i>	No growth	50:50 in TSB:Thio.
<i>Endotoxin level</i>	<0.5 EU/mL	Limulus Amoebocyte Lysate (LAL) assay, using ESB buffer.
<i>pH</i>	5.4-6.6/7.1-7.4	Pure product/mix 9+1 cell media. Sureflow semi-micro, regular buffers, 0.6-0.8 mL in 2 mL Eppendorf tube, 25°C.
<i>Viscosity</i>	2.1-5.0 kPa·s/ 0.9-1.4 Pa·s	Measured at 0.01 s ⁻¹ /200 s ⁻¹ shear rates. TA instruments HR-10, 20 mm UPP. Steady state flow sweep, 190 µL material, positive displacement pipet. Average of three runs.

CaCl₂ crosslinking agent:

Property	Specification	Method
<i>Appearance</i>	Clear solution	Visual inspection.
<i>Sterility</i>	No growth	50:50 in TSB:Thio.
<i>Endotoxin level</i>	<0.5 EU/mL	Limulus Amoebocyte Lysate (LAL) assay.
<i>pH</i>	6.7-7.4	Sureflow semi-micro, regular buffers, 0.6-0.8 mL in 2 mL Eppendorf tube, 25°C, 2 min equilibration in solution before three sequential measurements in fresh samples.