

CELLINK® A

CELLINK® A is based on the naturally derived polysaccharide, alginate. Isolated from the cell walls of brown algae, alginate is a versatile biomaterial that has been utilized in diverse applications ranging from food to drug delivery. Alginates contain source dependent arrangement of (1-4)-linked-D-mannuronic acid (M units) and -L-guluronic acid (G units) monomers which comprise the alginate block polymer.

The introduction of divalent cations such as Ca^{2+} bind G-units in adjacent chains together to rapidly form a gel. Alginates biocompatibility, ease of use, and customability has resulted in the wide applicability in many applications including bone and cartilage engineering, along with cell and drug delivery techniques. Additionally, the alginate can be readily modified to display nearly any peptide sequence, broadening its applications.

Compatibility

CELLINK® A is intended for and has been used with a wide range of cell types. As a universal bioink, it can be readily supplemented with tissue specific constituents to tailor its application toward nearly every tissue target or cell type.

Storage

CELLINK® A can be stored at 4°C . Protect the bioink from light and avoid temperature fluctuations. The shelf life of CELLINK® A is 3 months. Ensure the cartridges are capped prior to storage to prevent drying.



4°C



3 Months

Cellmixing

We suggest you mix CELLINK® A with a high concentration of cells and bioprint everything in one run with one print-head. You can either mix the cells manually or use our revolutionary STARTINK-Kit with our CELLMIXER, which is specifically designed to simplify the mixing process and offers a homogeneous suspension with an increased cell viability.

Crosslinking

CELLINK® A is simply crosslinked with our crosslinking solution containing CaCl_2 . Once your construct has successfully bioprinted, apply enough droplets to cover the construct. A 5 minute incubation is sufficient for most bioprinted structures. After that time, remove the crosslinking solution and wash with PBS and replace with the desired cell culture media.

Printing Parameters

For optimal printability we suggest you use the following parameters. Layer height matches nozzle diameter. Alginate must be printed at high translation speeds due to the characteristics of the alginate solution.

