

Product Data Sheet



Product Name *3-D Life* Dextran-PEG Hydrogel FG

Catalog Number FG90-1

Description The *3-D Life* Dextran-PEG Hydrogel FG Kit provides reagents for setting up fast gelling, cell-compatible hydrogels. Its major components are maleimide-functionalized dextran (Mal-Dextran) and the crosslinker PEG-Link. When the two reagents are combined, thiol groups on PEG-Link form stable thioether bonds with maleimide groups on the Mal-Dextran, which results in the formation of the gel.

Prior to the crosslinking step, cell adhesion peptides (e.g. *3-D Life* RGD Peptide, Cat. No. 09-P-001) can be covalently attached to a portion of the maleimide groups of Mal-Dextran to provide a cell-adhesive matrix.

Dextran hydrogels can be dissolved by the addition of dextranase (*3-D Life* Dextranase, Cat. No. D10-1), which allows the recovery of chemically fixed or live cells for post-culture analyses (e.g. RT-PCR) or for further cultivation.

For instructions, please consult the General Protocol GP-1 "Preparation of *3-D Life* Fast Gelling Hydrogels" and the *3-D Life* Hydrogels User Guide on www.cellendes.com.

Quantity Allows formation of up to 2 ml *3-D Life* Hydrogel depending on the grade of stiffness of the gel.

Components

Material	Quantity	Concentration of reactive groups	Storage
● Mal-Dextran [#] , lyophilized	170 µl*	30 mmol/L	Lyophilisate and after reconstitution: -80°C.
● PEG-Link, lyophilized	200 µl*	20 mmol/L	Lyophilisate and after reconstitution: -20°C to -80°C
● 10 x CB (pH 5.5)	200 µl	n.a	Short term (≤2 months): 4°C Long term: -20°C to -80°C
○ Water	2x 1500 µl	n.a	Room temperature or lower

All materials are filter-sterilized.

[#]Keep on ice while in use.

*Volume/concentration after reconstitution of lyophilisate.

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Reconstitution Mal-Dextran:

1. Briefly centrifuge vial containing the lyophilized Mal-Dextran to make sure that the entire material is at the bottom of the centrifuge tube.
2. Add 175 μ l 3-D Life Water for a concentration of 30 mmol/L maleimide groups.
3. Close tube and briefly vortex.
4. Place centrifuge tube on ice for 5 min.
5. Briefly vortex and centrifuge again.
6. Mal-Dextran is now ready for use. Keep on ice.

PEG-Link:

1. Briefly centrifuge vial containing the PEG-Link lyophilisate to make sure that the entire material is at the bottom of the reaction tube.
2. Add 188 μ l 3-D Life Water per tube for a concentration of 20 mmol/L thiol groups. This results in a 200 μ l PEG-Link solution.
3. Close tube and briefly vortex.
4. Incubate for 5 min.
5. Briefly vortex and centrifuge again.
6. PEG-Link is now ready for use.

Intended for research use only. Not for use in human therapeutic or diagnostic applications.

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