

# Product Data Sheet



Product name **3-D Life ToGro Hydrogel Kit**

Description The *3-D Life* ToGro Hydrogel Kit contains reagents for the preparation of hydrogels with a soft stiffness (400 Pa; shear modulus) and a RGD Peptide concentration of 0.4 mmol/l. The gel composition allows three-dimensional spreading and migration of most cells. The gel is formed by the crosslinking of modified dextran carrying the cell adhesion motif RGD (RGD-Dextran) and CD-Link. When the two reagents are combined, thiol groups on CD-Link form stable thioether bonds with SH-reactive groups on RGD-Dextran resulting in gel formation within 20 min. The formation of hydrogel is performed at physiological pH for optimal cell compatibility. CD-Link is composed of polyethylene glycol fused to a matrix metalloprotease (MMP)-cleavable peptide. The MMP-cleavable peptide is designed for a broad range of MMP cleavage including MMP1, MMP3, MMP7 and MMP9\*. It allows cells to spread and migrate within the gel if they express the indicated MMPs.

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

Catalog number G94-1

Quantity Allows formation of 2.4 ml *3-D Life* ToGro Hydrogel.

Applications 3-dimensional cultivation of various cell types, spheroids, tissue samples and similar requiring a cell-adhesive and cell-degradable matrix for cell growth and differentiation.

Components

	Materials provided <sup>1</sup>	Quantity	Storage Temperature
⊖	RGD-Dextran, lyophilized	After reconstitution: 2 x 900 µl	Lyophilisate: -20°C to -80°C After reconstitution: - short term (≤ 1 month): 4°C - longterm: -80°C
⊕	CD-Link, lyophilized	After reconstitution: 200 µl	Lyophilisate or after reconstitution: -20°C to -80°C
⊕	Reconstitution Buffer	2 x 900 µl	Short term (≤ 2 months): 4°C Long term: -20°C to -80°C
○	Water	1000 µl	RT to -80°C

<sup>1</sup> All materials are filter-sterilized.

Reconstitution of lyophilisates

- RGD-Dextran:
- Briefly centrifuge lyophilized components to make sure that the entire material is at the bottom of the centrifuge tube.
  - Add 853 µl Reconstitution Buffer per centrifuge tube. This will result in 900 µl RGD-Dextran per tube. Close tube and wait 5 minutes until all material is dissolved. Vortex briefly.
  - Let sit reconstituted RGD-Dextran for 1 hr at room temperature.
  - RGD-Dextran is now ready for use.

CD-Link:

- Briefly centrifuge lyophilized components to make sure that the entire material is at the bottom of the centrifuge tube.
- Add 188 µl Water. This will result in a 200 µl CD-Link solution. Close centrifuge tube and vortex briefly.
- Wait 5 minutes or until all material is dissolved.
- Briefly vortex and centrifuge again.
- CD-Link is now ready for use.

NOTE

INTENDED FOR RESEARCH USE ONLY. NOT FOR USE IN HUMAN THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.

\* Knight, C. G. et al. FEBS 296:263-66 (1992)