

# Product Data Sheet



Product Name *3-D Life* PVA-HA Hydrogel

Catalog Number G85-1

**Description** The *3-D Life* PVA-HA Hydrogel Kit provides reagents for setting up hydrogels containing hyaluronic acid. Its major components are SG-PVA and the thiol-functionalized hyaluronic acid crosslinker HyLink. When the two reagents are combined, thiol groups on HyLink form stable thioether bonds with thiol-reactive groups on SG-PVA, which results in the formation of the gel. The components are mixed at physiological pH (pH 7.2) for optimal cell compatibility. The slow gelation kinetics allows enough time to conveniently manipulate the solution before the onset of gel formation. The hydrogel allows cell spreading and migration if cell adhesion peptides are present in 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 SH-reactive groups on SG-PVA to provide a cell-adhesive matrix. For more information and instructions, please consult the General Protocol GP-4 "Preparation of *3-D Life* Hyaluronic Acid (HA) Hydrogels" and the *3-D Life* Hydrogels User Guide on [www.cellendes.com](http://www.cellendes.com).

**Quantity** Allows formation of 3.3 ml *3-D Life* Hydrogel of a crosslinking strength of 1.2 mmol/L.

## Components

Material	Quantity	Concentration of reactive groups	Storage
● SG-PVA	170 µl	30 mmol/L	Short term (≤2 months): 4°C; Long Term: -80°C, avoid frequent freeze/thaw cycles
● HyLink, lyophilized	2x 200 µl*	10 mmol/L*	Lyophilisate and after reconstitution: -70°C
● 10x CB (pH 7.2)	200 µl	n.a.	Short term (≤2 months): 4°C Long term: -20°C or lower
○ Water	2x 1500 µl	n.a	Room temperature or lower

All materials are filter-sterilized.

\*Volume/concentration after reconstitution of lyophilisate.

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Reconstitution    HyLink:

1. Briefly centrifuge vial containing HyLink lyophilisate to make sure that the entire material is at the bottom of the reaction tube.
2. Add 188  $\mu$ l 3-D Life Water per tube for a concentration of 10 mmol/L thiol groups.
3. Close tube and briefly vortex.
4. Incubate for 60 min at room temperature.
5. Briefly vortex and centrifuge again.
6. HyLink is now ready for use.

Notes

After reconstitution, HyLink is a viscous solution. Low binding pipet tips are recommended for accurate pipetting up to 20  $\mu$ l. For volumes above 20  $\mu$ l use wide orifice pipet tips.

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