

Product Data Sheet

Product Name *3-D Life* CD-Link

Catalog Number L60-3



Description *3-D Life* CD-Link is a component of the *3-D Life* Hydrogel system. The CD-Link molecule consists of a polyethylene glycol-peptide conjugate carrying a thiol at each end. When combined with polymers of the *3-D Life* Hydrogel system, thiol groups on CD-Link form stable thioether bonds with the thiol-reactive groups on the polymers, which results in the formation of the hydrogel. CD-Link can be used with *3-D Life* functionalised polymers Mal-PVA, Mal-Dextran, SG-PVA and SG-Dextran.

CD-Link contains a matrix metalloproteinase (MMP)-cleavable peptide sequence (Pro-Leu-Gly-Leu-Trp-Ala), which is cleaved by a broad range of MMPs including MMP1, MMP2, MMP3, MMP7, MMP9 and MMP13 [1, 2, 3]. It allows cells to locally degrade the polymer network, if they produce the indicated MMPs.

For instructions, please consult General Protocols GP-1 "Preparation of *3-D Life* Fast Gelling Hydrogels" or GP-2 "Preparation of *3-D Life* Slow Gelling Hydrogels" and the *3-D Life* Hydrogels User Guide on www.cellendes.com.

Quantity When used with polymers of the *3-D Life* Hydrogel system up to 6 ml *3-D Life* Hydrogel can be generated, depending on the stiffness of the gel.

Components

Material	Quantity	Concentration of reactive groups	Storage
 CD-Link, lyophilized	3x 200 µl*	20 mmol/L* thiol groups	Lyophilisate and after reconstitution: -20°C to -80°C
 Water	600 µl	n/a	Room temperature or lower

All materials are filter-sterilized.

*Volume/concentration after reconstitution of lyophilisate.

Reconstitution

- Briefly centrifuge vial containing CD-Link lyophilisate to make sure that the entire material is at the bottom of the reaction tube.
- Add 188 µl *3-D Life* Water per tube for a concentration of 20 mmol/L thiol groups.
- Close tube and briefly vortex.
- Incubate for 5 min.
- Briefly vortex and centrifuge again.
- CD-Link is now ready for use.

References

- [1] Knight, C. G. et al. FEBS 296:263-66 (1992)
- [2] Patterson, J. and Hubbell, J. A. Biomaterials 31, 7836-7845 (2010)
- [3] Deng, S. et al. J. Biol. Chem. 275, No. 40, 31422–31427 (2000)

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