

Product Data Sheet

Product Name ToLuminate N-Dextran

Catalog Number M93-2

Description

ToLuminate N-Dextran is a component of the ToLuminate Hydrogel system. It contains norbornene-functionalized dextran (N-Dextran) that can be used together with *3-D Life* crosslinkers PEG-Link (Cat. No. L50-1 or L50-3), CD-Link (Cat. No. L60-1 or L60-3), HyLink (Cat. No. L70-1 or L70-3) or CD-HyLink (L80-1 or L80-3) to set up hydrogels formed by illumination with blue light (365-405 nm) on the basis of the thiol-ene chemistry. In addition, the set contains the photoinitiator LAP (Lithium phenyl-2,4,6-trimethyl-benzoylphosphinate) required for photocrosslinking and a phenol red-free 10x buffer solution compatible with light-dependent crosslinking.

When N-Dextran is combined with crosslinker and illuminated in the presence of LAP, thiol groups on the crosslinker are activated and form stable thioether bonds with norbornene groups on N-Dextran.

When crosslinked with PEG-Link or CD-Link, dextran-based ToLuminate 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.

The 10x CB (pH 7.2) Phenol Red-free is a buffer solution to control pH and osmotic conditions during gel formation in the presence of cells.





For more information and instructions, please consult the General Protocol GP-5 "Preparation of ToLuminate Photogels".

Quantity Without peptide modification:

- Up to 18 mL hydrogel at a crosslinking strength of 2 mmol/L (used for crosslinking with HyLink or CD-HyLink).
- Up to 12 mL hydrogel at a crosslinking strength of 3 mmol/L (used for crosslinking with PEG-Link or CD-Link).

The hydrogel volume will be reduced, if peptide modifications are added.

Components

Material	Quantity	Concentration of reactive groups	Storage
 N-Dextran	2x 600 µl	30 mmol/L	-20°C to -80°C
 10x CB (pH 7.2) Phenol Red-free	2x 600 µl	n/a	Short term (≤2 months): 4°C Long term: -20°C to -80°C
 LAP, 10 mM	2x 600 µl	10 mmol/L	-20°C to -80°C
 Water	3x 1500 µl	n.a	Room temperature or lower

All materials are filter-sterilized.

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