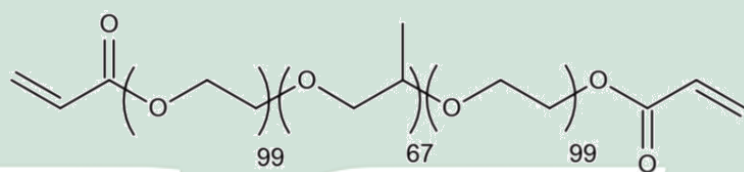


Polyether F127 Diacrylate (F127DA)

Product Component

Item	Appearance	Package Size	Remark
A: F127DA	White powder	1 g/bottle OR 5 g/bottle	Keep in dark
B: Photoinitiator LAP	White powder	0.05g/ bottle * (1 or 5)	

This instruction applies to EFL-F127DA



F127DA molecular structure

Product Introduction

Polyether F127 diacrylate (F127DA) is a double-bond modified polyethylene glycol-poly (propylene glycol) -polyethylene glycol triblock copolymer, which can be cross-linked rapidly by ultraviolet and visible light with photoinitiator. F127 has thermogenic properties and biosafety. The material matrix based on F127 can be applied in biomedical fields: drug carrier, wound dressing, cell carrier shear protector, biological 3D printing, etc.

Applications

High strength hydrogel, Drug carrier, Biological 3D printing, Tissue engineering, etc.

Storage

Dry kit: room temperature, 3 months; 4°C, 12 months; -20°C, 18 months. **Sterile solution:** 4°C (in dark), 7 days; -20°C (in dark), 6 months. **Please note that repeated freezing and thawing of the solution will affect the performance of the product, so it is best to prepare it when using it.**

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Period of validity

The date of manufacture is shown in the package.

Solution preparation

1. Prepare 0.25% (w/v) standard solution of initiator

- (1) Add 20ml PBS into the brown bottle containing initiator LAP (containing 0.05g LAP);
- (2) Heat and dissolve the solution in a water bath at 40-50°C for 15 minutes, shaking several times.
- (3) The LAP standard solution can be stored for 12 months at 4°C in dark.

2. Prepare F127DA solution (5-30% (w/v) is recommended, below 5% is suitable for three-dimensional cell culture)

- (1) Take the required mass of F127DA into the centrifugal tube;
- (2) Add the initiator standard solution into the centrifuge tube;
- (3) Dissolve at 2-8 °C for 30 minutes, oscillate several times during the period (the concentration below 20% can be dissolved by stirring at room temperature).

Solidification

The F127DA solution containing initiator can be solidified into a gel after 10 to 30 seconds with 405nm light source. In order to obtain higher strength hydrogels, the illumination time can be extended as appropriate.

Notes:

F127DA has thermogenic gel properties and is a heating gel. During the preparation of solution, reducing the temperature is beneficial to the process. It is recommended to stand for dissolution at 2-8°C, during which the vortex mixer is used to shake several times.

F127DA solution with a concentration greater than 20% will gelatinize when standing at room temperature. The higher the concentration, the easier it will gelatinize. In this case, the gel is physically reversible and will return to the solution state when the temperature drops to 2-8 °C.

Tips: Do not look directly at the light source.