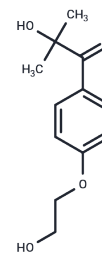


I2959

Chemical Properties

CAS No. :	106797-53-9
Formula:	C ₁₂ H ₁₆ O ₄
Molecular Weight:	224.25
Storage:	Keep away from direct sunlight, Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	I2959, widely known as Irgacure 2959, is a photoinitiator extensively used for ultraviolet light-induced photocrosslinking of hydrogels in biomedical applications and is particularly utilized in combination with carboxymethylcellulose (CMA) hydrogels as a bioink for bio 3D printing applications; furthermore, I2959 is recognized for its high radical generation efficiency under UV exposure but also exhibits concentration-dependent cytotoxicity to rapidly dividing cell lines.
Targets(IC50)	Others
In vitro	Encapsulation of Saos-2 cells in photochemically cross-linked CMA hydrogels: 1. Proliferate the human osteosarcoma cell line Saos-2 in RPMI medium (containing 15% FBS, 1% L-glutamine, and 1% penicillin/streptomycin). 2. Resuspend the cells in a neutralized CMA solution supplemented with 0.02% or 0.1% photoinitiator I2959. 3. Add 45 μ L of the cell suspension (approximately 5,000 cells) to each well of a 96-well plate and incubate at 37°C for 30 minutes to allow for initial gelation. 4. Irradiate the hydrogels with 365 nm UV light for either 1 minute or 10 minutes to complete photocrosslinking; a control hydrogel without UV exposure was also prepared. 5. Culture the encapsulated cell hydrogels in α -MEM medium (supplemented with 50 μ g/mL ascorbic acid, 10 mM β -glycerophosphate, 10% FBS, and 1%

Solubility Information

Solubility	DMSO: 80 mg/mL (356.74 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4593 mL	22.2965 mL	44.5931 mL
5 mM	0.8919 mL	4.4593 mL	8.9186 mL
10 mM	0.4459 mL	2.2297 mL	4.4593 mL
50 mM	0.0892 mL	0.4459 mL	0.8919 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Thuy-Uyen Nguyen, et al. Photochemically crosslinked cell-laden methacrylated collagen hydrogels with high cell viability and functionality. J Biomed Mater Res A. 2019 Jul;107(7):1541-1550.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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