

Gelatin Methacryloyl Crosslinked Microsphere

Product component

Type	Diameter/ μm	character	Package Size	Notes
EFL-MS-C-GM-50	50~100	Pale-yellow microspheres	0.5g/ bottle	Keep in dark
EFL-MS-C-GM-100	100~200			

This instruction applies to EFL-MS-C-GM

Product introduction

Gelatin Methacryloyl Crosslinked Microsphere is prepared by an optimised emulsion crosslinking technique and sieving. The microspheres not only retain the excellent bioactivity and degradation properties of GelMA, but also are available in a wide range of sizes and have a concentrated particle size distribution within the same size range. In short, the microspheres can be rapidly swollen and have good biocompatibility.

Applications

GM microspheres can be used as individual cell culture units or assembled into porous scaffolds or simulated bionic microenvironments. They can be used in the fields of cell 3D culture, drug delivery, tissue engineering and regenerative medicine research.

Storage

Dry kit: 4°C, 18 months; -20°C, 24 months; -80°C, 24 months. **Sterile wet state:** 4°C, 30 days. Can be transported at room temperature.

Period of validity

The date of manufacture is shown in the package.

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Recommendation for sterilization of materials

Method 1: UV light irradiation sterilization

- (1) Place the microspheres on an ultra-clean operating system and irradiate them under a UV light for 1~2h;

Method 2: 75% ethanol sterilization

- (1) Immerse the microspheres in 75% ethanol for 30~60min;
- (2) Remove ethanol in a sterile environment and wash 3 times with PBS (1x), soaking 15-20min each time.

Recommendation for cell culture

- Transfer sterile microspheres into low adherence sterile well plates (**Recommended to use the SpheroX® range of ultra-low-adhesion well plates: EFL-SP201**);
- Add the medium to the well plate to submerge the microspheres. Place in a 37°C incubator for 15-30min to allow the microspheres to fully swell and equilibrate, then remove the medium;
- Add the cell suspension to the well plate. Change medium, observe, and photograph according to experimental design. **(Note: Be gentle with fluid changes and staining procedures to avoid external forces that may cause cells to dislodge)**

Recommended dosage

Due to the different diameter of the microspheres, the number of microspheres is different in the same type of plate.

Recommended dosage table

Type	Number of microspheres	Additive amount/mg	Number of microspheres	Additive amount/mg
	EFL-MS-C-GM-50		EFL-MS-C-GM-100	
6-hole plate	15000~20000	14~16	10000~15000	13~15
12-hole plate	8000~10000	7~8	5000~7000	6~7
24-hole plate	2500~3500	2.5~3.2	2000~2500	2~3
48-hole plate	1000~1800	0.7~1.5	700~1200	0.5~1.5
96-hole plate	500~800	0.5~0.6	200~500	0.4~0.6