



LNP@Ce6, lipid nanoparticles encapsulating chlorin e6

Cat. No. R-LNP-C06

Lot. No. (See product label)

Alias	Chlorin e6 encapsulated in lipid nanoparticles
Appearance	Dispersion
Molecular Formula	N/A
Solubility	Dispersed in water or PBS buffer
Storage	2-8°C, protected from light
Purity	95%+
Shelf Life	1 year
Shipping Condition	low temperature transport
Application	Preparation of liposomes
Specification	10mg : Inquiry 20mg : Inquiry 50mg : Inquiry
Description	LNP@Ce6 is a constructed nanoscale delivery system that encapsulates hematoporphyrin monomethyl ether inside lipid nanoparticles. Lipid nanoparticles are mainly composed of ionizable cationic phospholipids, cholesterol, auxiliary phospholipids and polyethylene glycol modified phospholipids. Under physiological pH conditions, ionizable cationic phospholipids are neutral, protonated and positively charged in acidic environments such as endosomes, and can tightly combine with negatively charged or polar Ce6 through electrostatic interaction, hydrophobic interaction, etc. to achieve

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efficient encapsulation. Cholesterol enhances membrane fusion and helps LNP@Ce6 to be taken up by cells and promote Ce6 to escape from endosomes and enter the cytoplasm. Auxiliary phospholipids stabilize the phospholipid bilayer structure and maintain the stability of LNP morphology. Polyethylene glycol-modified phospholipids are located on the surface of LNP to prevent particle aggregation, prolong circulation time in the body, and avoid rapid clearance by the immune system. Hematoporphyrin monomethyl ether is a photosensitizer with photodynamic properties. Under the irradiation of light of a specific wavelength, it can transition from the ground state to the excited state, and then undergo energy transfer with surrounding oxygen molecules to produce reactive oxygen species such as singlet oxygen that are harmful to cells. After combining with LNP, it not only improves the stability of Ce6 and improves its delivery efficiency in the body, but also enables it to reach the site of action more accurately and perform functions such as photodynamic treatment.

Supplier

Xi'an Ruixi

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