LNP@FA, lipid nanoparticles encapsulating folic acid

Cat. No. R-Z-0213

Lot. No. (See product label)

Alias	FA loaded on the surface of cationic liposomes
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@FA is a constructed nanocomplex that encapsulates folic acid inside lipid nanoparticles (LNP). 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 be closely combined with negatively charged or polar folic acid through electrostatic interactions, hydrophobic interactions, etc. to achieve efficient encapsulation. Cholesterol

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	enhances membrane fusion, which helps LNP@FA to be taken up by cells and promote folic acid 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 their circulation time in the body, and avoid rapid clearance by the immune system. Folic acid is a water-soluble vitamin that plays an important role in cell metabolism, DNA synthesis and other processes. Many tumor cells have high affinity for folic acid and take up folic acid through endocytosis mediated by folate receptors. LNP@FA utilizes this property to achieve targeted delivery to cells with high expression of folate receptors and increase the concentration of folic acid in target cells or tissues. At the same time, lipid nanoparticles protect folic acid from degradation and enhance its stability and delivery efficiency.
Supplier	Xi'an Ruixi

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