Clodronate Liposomes（From Vrije Universiteit Amsterdam）

Product Information

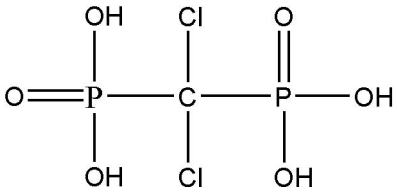
Product name	Cat#	Specification
Clodronate Liposomes（From Vrije Universiteit Amsterdam）	40337ES08	5 mL
	40337ES10	10 mL

Product Description

Clodronate liposomes was developed by Professor Nico van rooijen of Vrije University in Amsterdam, the Netherlands. It uses the endocytosis mechanism of macrophages to bring membrane impermeable clodronate into cells. Under the action of macrophage lysosomal phosphatase, chlorophosphonic acid dissolved in liposome aqueous phase was released and accumulated in cells. When it reaches a certain concentration, it can induce macrophages to enter the process of apoptosis, so as to achieve the function of scavenging macrophages.

Clodronate liposomes is applicable to a variety of injection methods, such as intravenous injection, intraperitoneal injection, subcutaneous injection, intranasal injection and testicular injection. The amount of injection was related to the weight of mice, injection cycle, injection method and experimental purpose.

Product characteristics

Solution	10 mM Na_2HPO_4，10 mM NaH_2PO_4，140 mM NaCl
Concentration	5 mg/mL
Lipid composition	Phosphatidylcholine and cholesterol
Structure	

Shipping and Storage

The components are shipped with ice pack and can be stored at 4 ℃ for 3 months. Cannot be frozen!

Cautions

1. Before use, it must be fully mixed and restored to room temperature.
2. For research use only!

Instructions

Please refer to relevant literature for specific injection volume, and explore and optimize according to your own experimental conditions (such as experimental purpose, injection method, injection cycle).

Intraperitoneal injection

1. Before injection, remove clodronate liposomes and sterile PBS (for injection) from the refrigerator. Naturally return to room temperature (18 ℃).

【Notes】: Clodronate liposomes suspension shall not be frozen and shall not exceed 30 ℃.

2. Upside down for 8-10 times. Connect a 26 gauge needle to a 1ml syringe and suck 200 μL Clodronate liposomes .
3. Grab enough skin behind the ears of the mouse and tail with the left hand to fix the head and limbs.

4. Tilt the mouse slightly and let the head face the ground, so that the organ originally concentrated at the lower right of the abdomen moves towards the head and away from the injection site.

5. Before injection, reverse the syringe for 6 times and mix clodronate liposomes.

【Notes】: Long time placement will cause liposomes to precipitate in the syringe, resulting in uneven concentration during injection.

6. The needle is inserted into the lower right side of the abdomen at an angle of 30 degrees. 200 μL injections respectively clodronate liposomes (experimental group) and PBS (control group).

Reference

[1] Song C, Li H, Li Y, et al. NETs promote ALI/ARDS inflammation by regulating alveolar macrophage polarization[J]. Experimental Cell Research, 2019, 382(2): 111486.

[2] Jiang P, Gao W, Ma T, et al. CD137 promotes bone metastasis of breast cancer by enhancing the migration and osteoclast differentiation of monocytes/macrophages[J]. Theranostics, 2019, 9(10): 2950.

[3] Yang L, Dong C, Tian L, et al. Gadolinium Chloride Restores the Function of the Gap Junctional Intercellular Communication between Hepatocytes in a Liver Injury[J]. International Journal of Molecular Sciences, 2019, 20(15): 3748.

[4] Wu H, Xu X, Li J, et al. TIM-4 blockade of KCs combined with exogenous TGF-β injection helps to reverse acute rejection and prolong the survival rate of mice receiving liver allografts[J]. International Journal of Molecular Medicine, 2018, 42(1): 346-358.

[5] Tian L, Li W, Yang L, et al. Cannabinoid receptor 1 participates in liver inflammation by promoting M1 macrophage polarization via RhoA/NF-κB p65 and ERK1/2 pathways, respectively, in mouse liver fibrogenesis[J]. Frontiers in Immunology, 2017, 8: 1214.

[6] Li W, Chang N, Tian L, et al. miR-27b-3p, miR-181a-1-3p, and miR-326-5p are involved in the inhibition of macrophage activation in chronic liver injury[J]. Journal of Molecular Medicine, 2017, 95(10): 1091-1105.