

Abstract Submitted
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Reconstitution radicicol containing apolipoprotein B lipoparticle and tracing its cell uptake process by super resolution fluorescent microscopy.¹ CHUNG CHING LIN, Natl Chiao Tung Univ, PO-YEN LIN, Division of Core Facilities Imaging, Institute of Cellular and Organismic Biology, Academia Sinica, CHIA-CHING CHANG, Department of Biological Science and Technology, National Chiao Tung University — Apolipoprotein B (apoB) is the only protein of LDL. LDL delivers cholesterol, triacylglycerides and lipids to the target cells. Reconstitute apoB lipoparticle (rABL) will be an idea drug delivery vehicle for hydrophobic and amphiphilic materials delivery. It is challenged to renature ApoB into its functional state from denatured state. By using modified bile salt and radicicol (Rad) added over-critical refolding process, apoB can be restored into its native like state. The intrinsic fluorescence of apoB increased during the refolding process. Moreover, radicicol (Rad) molecules have been encapsulated into reconstitute rABL (Rad@rABL). To investigate the cell uptake mechanism of Rad@rABL, a super resolution ground state depletion (GSD) microscopy is used in this research. Fluorescence labeled Rad@rABL can be traced within the tumor cell.

¹Key words: LDL, radicicol, protein refolding, super resolution microscopy

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