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研究简报

# 巨型囊泡的侧向相分离与出芽

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摘要 用电形成法制备含三组分二油酰磷脂酰胆碱(DOPC)/二棕榈酰磷脂酰胆碱(DPPC)/胆固醇(Chol)的巨型囊泡, 以TR-DPPE为荧光染色剂, 在荧光显微镜下直接观察膜的侧向相分离与微区相凸起出芽的耦合. 发现囊泡膜内的相分离具有诱导期, 相分离速度很快, 形成的微相区在整个囊泡球面上均衡分布. 各微相区的出芽不是同时进行, 为逐个随机发生. 每次出芽的时间小于0.5 s. 分相与出芽的耦合使球面上的不同微区之间不会相互融合成更大的微区.

关键词 巨型囊泡 侧向相分离 出芽

分类号

## Lateral Separation and Budding of Giant Vesicles

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**Abstract** Lateral phase separation and budding of giant vesicles prepared by electroformation with a model mixture, 1,2-dioleoyl-sn-glycero-3-phosphocholine (DOPC)/1,2-dipalmitoyl-sn-glycero-3-phospho- choline (DPPC)/Cholesterol (Chol), were observed directly by fluorescence microscopy. It was found that the separation after a short retardation time was a fast process and the domains thus formed were regularly distributed on the surface of the vesicles. Budding of the microdomains occurred one by one and the time to finish a budding process was less than 0.5 s. The coupling of the separation and budding stopped further fusing and growing of the microdomains.

**Key words** giant vesicle lateral phase separation budding

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