Cytochrome c assisted escape of cardiolipin from a model mitochondrial membrane

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Binding of cytochrome c (Cytc) to cardiolipin (CL) in the inner mitochondrial membrane is involved with the onset of apoptosis. In this study, we make use of CLcontaining phospholipid monolayers to mimic the inner mitochondrial membrane.Constant pressure insertion assay was employed to monitor the Cytc-induced expansion of membrane area. Simultaneous epifluorescence microscopy imaging afforded the *in-situ* visualization of phospholipid demixing and sorting in the membrane. The formation of a CL-rich Ld phase has been observed to prelude the insertion of Cytc. We will demonstrate that the insertion of Cytc disrupts the membrane in a way facilitating the escape of CL. The findings of our study may aid in understanding the early events leading to the remodeling of inner mitochondrial membrane and loss of its function during apoptosis.

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