

Description of Additional Supplementary Files

File name: Supplementary movie 1

Description: LecA induces reorganization of the SLB. The complete time sequence of the experiment presented in figure 2a and figure S2. LecA binds to the Lo domains and dissolves them (purple arrowheads). The membrane multilayers, induced by LecA are depicted with the white arrowheads. The subsequent formation of membrane defects is depicted by orange arrowhead. Several events indicate possible asymmetric Lo domains dissolution (red arrowheads), similar to the one presented in supplementary movie 5.

File name: Supplementary movie 2

Description: Ratiometric imaging of the LecA-induced SLB reorganization. The complete time sequence of the experiment presented in figure 2 and figure S3. The dissolving of the Lo domains (one of many events is pointed by white arrowhead) and multilayers formation (two of many events are pointed with cyan arrowheads) are depicted here.

File name: Supplementary movie 3

Description: The reorganization of the homogeneous SLB induced by LecA. The complete time sequence of the experiment presented in figure S4. The phase separation is absent in this SLB. LecA binds to the SLB and induces the multilayers formation (white arrowheads). Subsequently, the membrane defects are induced (orange arrowhead).

File name: Supplementary movie 4

Description: The LecA-induced reorganization of the SLB supplemented with Gb3 FSL. The movie depicts the complete time sequence of the experiment presented in figure 3. The reorganization of the Lo domains is depicted by white arrowheads and the multilayer is depicted with blue arrowheads.

File name: Supplementary movie 5

Description: Di-LecA induces reorganization of the SLB. The complete time sequence of the experiment presented in figure 4a. Di-LecA binds to the Lo domains and induces their partial dissolution (white arrowheads). Thereafter, the re-shaping of the Lo domains stops, but they are dissolved asymmetrically.

File name: Supplementary movie 6

Description: The Di-LecA-induced reorganization of the SLB supplemented with Gb3 FSL. The complete time sequence of the experiment presented in figure 5. The reorganization of the Lo domains is depicted by white arrowheads.