

Description of additional supplementary file

File name: Supplementary Move 1

Description: A movie shows a process of E-cadmodified GUV binds to an E-cad-modified SLB and finally adheres to the SLB due to the formation of the cis-clustered state of the E-cads.

File name: Supplementary Move 2

Description: A movie shows the fluctuation of an E-cad-modified GUV above an E-cad-modified SLB. Notably, adhesion does not occur due to the absence of the cis-clustered state formation.