

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: List of all deposited structures of Get3 alone and in complex with its different binding partners used for comparison with our structures.

File Name: Supplementary Data 2

Description: List of the lipid compositions used in atomistic molecular dynamics (MD) simulations of our structure of *hsGet2 Δ N*-Get1/Get3 embedded in a lipid bilayer of varying lipid compositions.

File Name: Supplementary Movie 1

Description: – **Membrane thinning by the human GET insertase.**

Average 3D iso-occupancy map for the lipid phosphorus atoms showing local membrane thickness and deformation relative to the structure of *hsGet1*/Get2. Both 2D membrane thickness maps and the 3D iso-occupancy maps were constructed as an average over all 3 simulation repeats after discarding the first 200 ns from each repeat, after the transmembrane region of the protein is aligned on the membrane plane.

File Name: Supplementary Movie 2

Description: **Transition from state 1 to state 2 of the heterotetramer leads to steric clashes when bound exclusively to open *hsGet3***

A model for state 1 was constructed by superimposing the wild type *hsGet2 Δ N*-Get1 heterodimer on each *hsGet1* coiled-coil in the *hsGet2 Δ N/ Δ α 3'*-Get1/Get3 structure. The states are interconverted by using morph in ChimeraX⁵². *hsGet3*, teal; *hsGet1*, blue; *hsGet2*, orange.