

Description of Additional Supplementary Files

File name: Supplementary Data 1

Description: DALI search results using yeast Rmp1 core structure as a query to search the AlphaFold database of *Homo sapiens*, *Mus musculus*, *Danio rerio*, *Drosophila melanogaster*, *Caenorhabditis elegans* and *Arabidopsis thaliana*.

File name: Supplementary Data 2

Description: DALI search results using yeast Snm1 core structure as a query to search the AlphaFold database of *Homo sapiens*, *Mus musculus*, *Danio rerio*, *Drosophila melanogaster*, *Dictyostelium discoideum* and *Arabidopsis thaliana*.

File name: Supplementary Data 3

Description: Foldseek search results using yeast Rmp1 and Snm1 and human NEPRO (RMP64) and C18orf21 (RMP24) as queries.

File name: Supplementary Data 4

Description: IP-MASS data information.

File name: Supplementary Data 5

Description: Real-time quantitative PCR primers and shRNA used in this study.