**Supplementary file 3**

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| **Force field** | **Free energy difference (kJ/mol)** | **References** |
| All-atom (CHARMM36) | 95.4 | Ting, C.L. et al.2 |
| All-atom(CHARMM36) | 104.6 (by extrapolation) | Dixit, M. et al.1 |
| CG-MARTINI | 93+/-1.5 | This study |

1 Dixit, M. & Lazaridis, T. Free energy of hydrophilic and hydrophobic pores in lipid bilayers by free energy perturbation of a restraint. *J Chem Phys* **153**, 054101, doi:10.1063/5.0016682 (2020).

2 Ting, C. L., Awasthi, N., Muller, M. & Hub, J. S. Metastable Prepores in Tension-Free Lipid Bilayers. *Phys Rev Lett* **120**, 128103, doi:10.1103/PhysRevLett.120.128103 (2018).