**Supplementary file 1. Physico-chemical parameters of *Popu*CATH.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Total amino acid residues | Polar residues | Non-polar residues | Rich residue | Net charge | TheoreticalpI*a* | Theoretical MW*b* (Da) | Observed MW(Da) |
| Gly |
| 46 | 41 | 5 | 21 | +10 | 12.60 | 4296.54 | 4295.90 |

*a*isoelectric point, *b*molecular weight