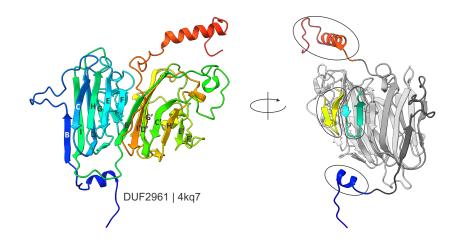
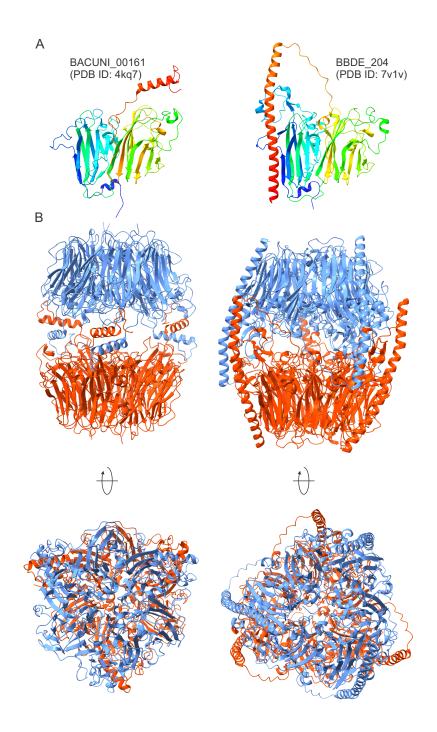
## SUPPLEMENTARY INFORMATION



**Figure S1.** Different views of the structure of BACUNI\_00161, the prototype of DUF2961 family. The structure on the left is colored using the rainbow scheme from the N-terminus (blue) to C-terminus (red). The  $\beta$ -strands are named according to the commonly used nomenclature (see Figure 1A for details). The view on the right highlights the structural elements specific to BACUNI\_00161. The latter are outlined and are depicted in color, whereas the rest of the structure is shown in greyscale.



**Figure S2.** The structures of DUF2961 family proteins. A. Comparison of BACUNI\_00161 (left) and BBDE\_204 (right). The structure on the left is colored using the rainbow scheme from the N-terminus (blue) to C-terminus (red). B. Comparison of the crystallized biological assemblies of BACUNI\_00161 (left) and BBDE\_204 (right). Depicted are two trimers which form tail-to-tail hexamers stabilized through interactions involving the corresponding C-terminal  $\alpha$ -helices. The two trimers in each hexamer are colored red and blue, respectively. PDB identifiers: 4kq7 (BACUNI\_00161) and 7v1v (BBDE\_204).