



Supplementary Figure S1. Surface localization of one of the putative Zn²⁺ binding site to conglutin gamma. Panel A shows that the interested region is solvent exposed even in the whole assembled hexameric structure. Panel B shows the magnification of the putative zinc coordination site. Zn²⁺ atom is shown in grey; coordinating residues H439, H256 and D257 are displayed in stick representation; H4N α -helix [21] is colored in light green. Monomer A of γ C is tan colored, while the other monomers forming the quaternary structure are cyan colored. The identification of amino acid residues of γ C potentially involved in zinc coordination was carried out resorting to Metal Ion-Binding Site Prediction and Docking Server (MIB). The predictions identified a region including the inhibitory loop IL2, also present in GH11 and GH12 inhibitors, namely TAXI-I and XEGIP [39]. Within IL2, residue H439 is of key importance as demonstrated earlier in a recombinant mutant version of γ C [20]. This histidine is conserved in TAXI-I IL2, but in XEGIP the same position is occupied by an arginine residue.