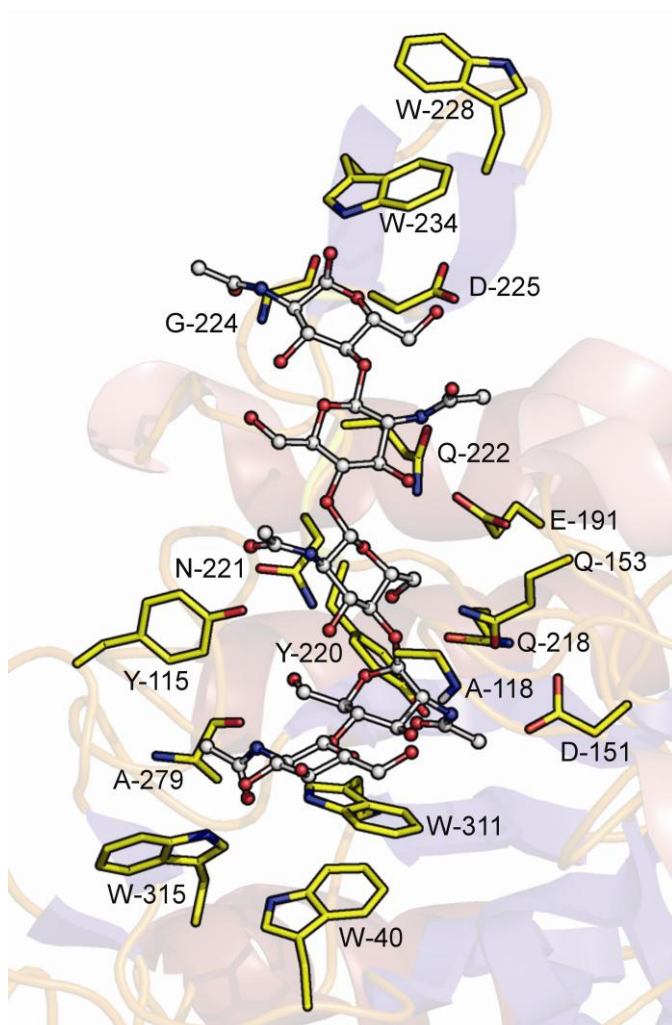


## Supporting Information



**Figure S1.** The four-domain structure of *MmChi60* is outstanding in its complexity. Many glycoside hydrolases, such as chitinases or cellulases, have multi-domain structures, but only a few have been solved. Flexibility of hinge regions between domains apparently makes such proteins difficult to crystallize. Analysis of the active site mutant of *MmChi60* unliganded and in complex with substrates NAG<sub>4</sub> and NAG<sub>5</sub> revealed significant differences in the substrate binding site compared to the already known complexes of most studied chitinases. SAXS experiment demonstrated that the protein, in addition to the elongated state found in the crystal, can adapt other conformations in solution, ranging from fully extended to compact.