

Structure and Activity of the *Streptomyces coelicolor* A3(2) β -N-Acetylhexosaminidase Provides Further Insight into GH20 Family Catalysis and Inhibition

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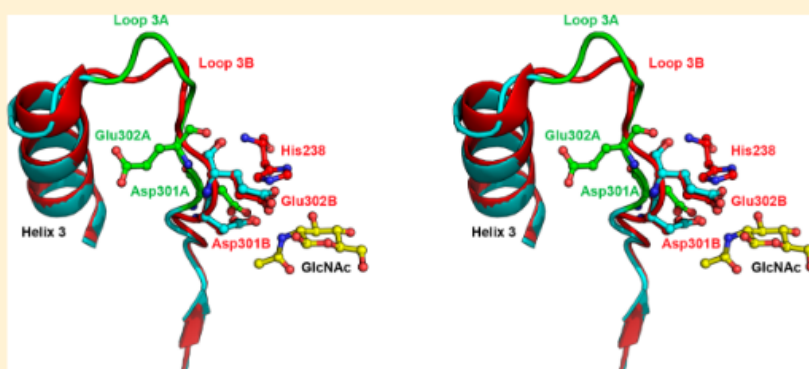
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S Supporting Information



ABSTRACT: β -N-acetylhexosaminidases (HEX) are glycosidases that catalyze the glycosidic linkage hydrolysis of *gluco*- and *galacto*-configured *N*-acetyl- β -D-hexosaminides. These enzymes are important in human physiology and are candidates for the biocatalytic production of carbohydrates and glycomimetics. In this study, the three-dimensional structure of the wild-type and catalytically impaired E302Q HEX variant from the soil bacterium *Streptomyces coelicolor* A3(2) (ScHEX) were solved in ligand-