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Supporting information for article:

A GH115 α-glucuronidase structure reveals dimerization-mediated substrate binding and a proton wire potentially important for catalysis

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Figure S1 Escherichia coli codon optimised gene encoding for wtsAgu115A.

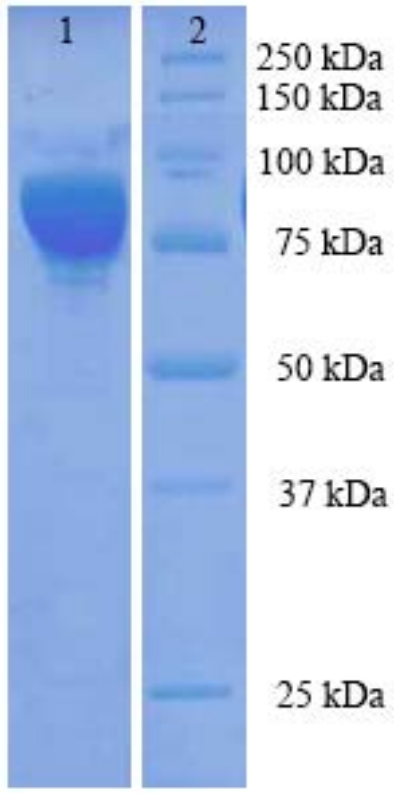

Figure S2 SDS-PAGE of wtsAgu115A. Lane 1 shows wtsAgu115A and lane 2 the marker with sizes indicated in kDa.

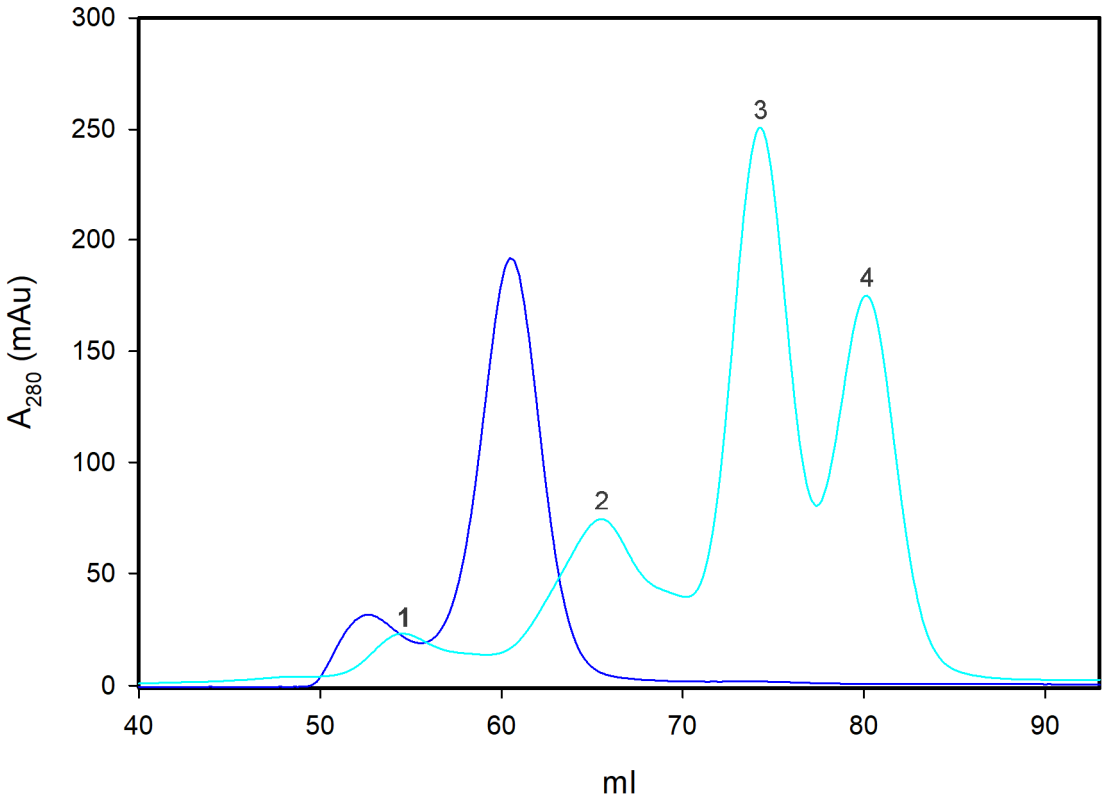

Figure S3 Analytical size exclusion chromatography wtsAgi115A (blue) compared to ferritin (1), aldolase (2), conalbomin (3) and ovalbumin (4) (cyan).

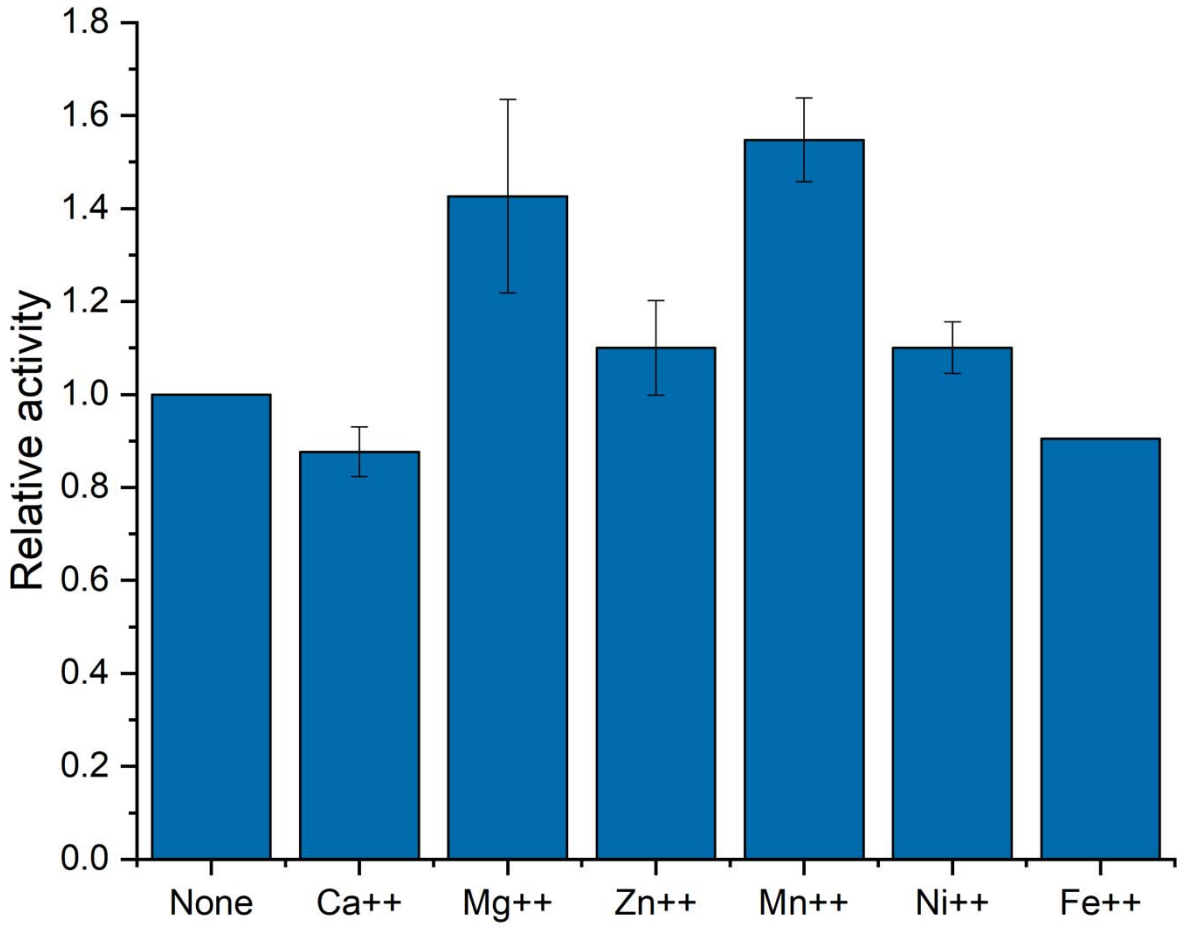

Figure S4 Effects of divalent metal-ions on wtsAgu115A activity on aldouronic acids.

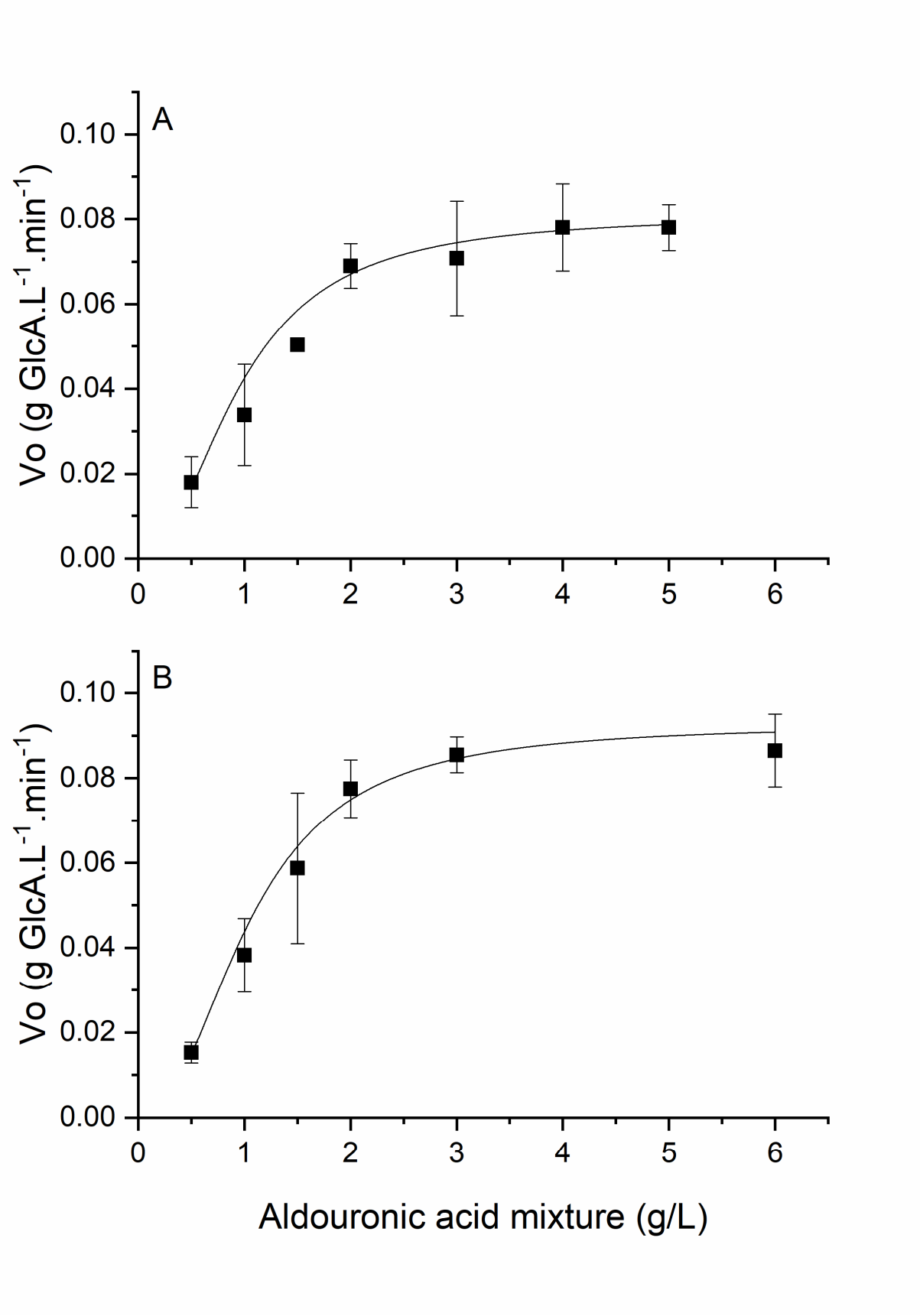

Figure S5 Substrate hydrolysis curves for wtsAgu115A of A) aldouronic acids and B) aldouronic acids in the presences of 2 mM MgCl.

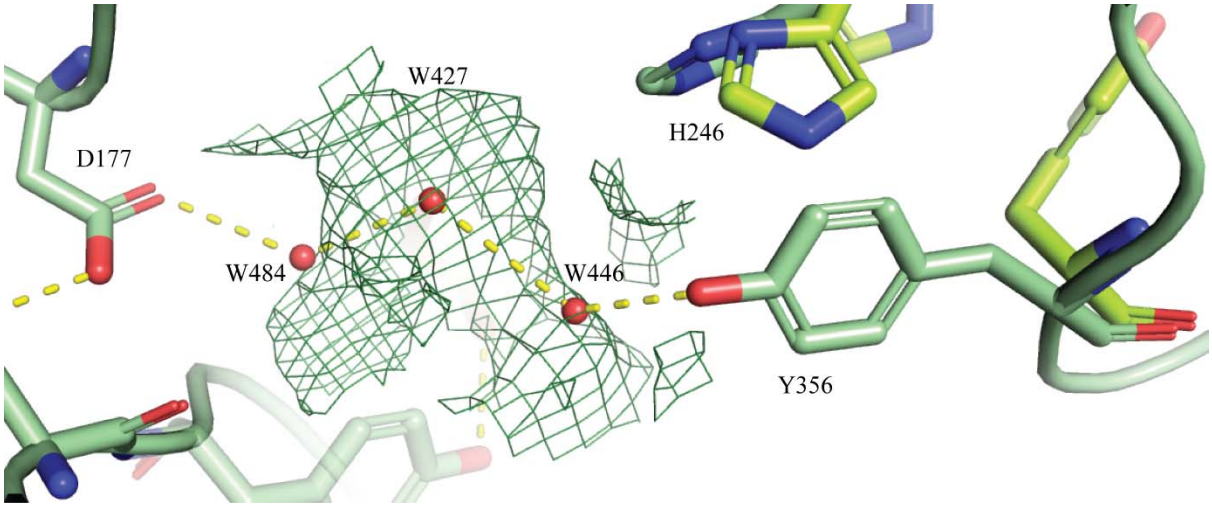

Figure S6 Omitmap (contoured to 3.0σ in green mesh with a cutoff at 3.0 Å for C) of wtsAgu115A water molecules 427, 446 and 484 (red) with xylohexaose (orange) and hydrogen bonds (yellow dotted lines) , and residues shown in lime are from wtsAgu115A-D303A-unbound and in pale green are from wtsAgu115A-xylohexaose.

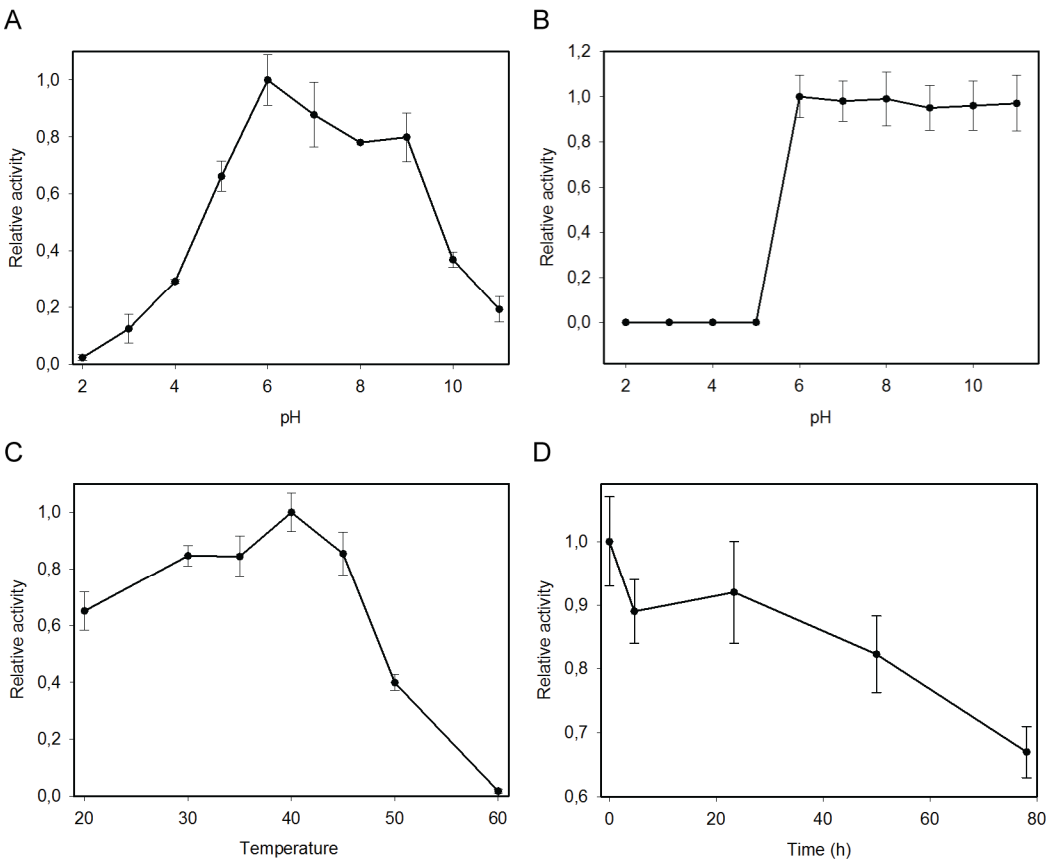

Figure S7 wtsAgu115A A) pH optimum, B) pH stability, C) temperature optimum and D) stability at 37 ºC.