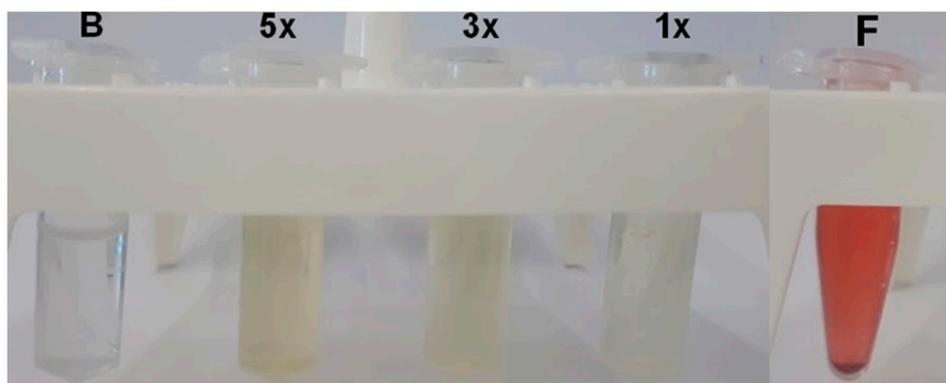
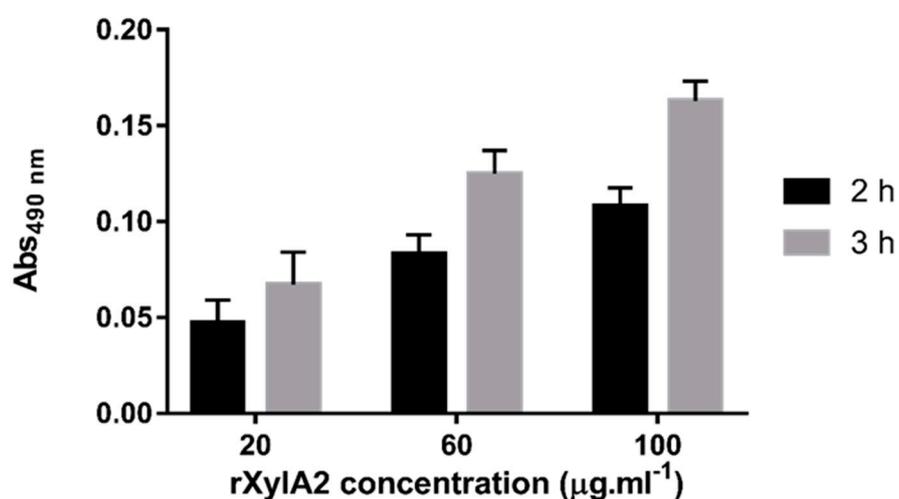


## Supplementary Material



**Figure S1. Conversion activity of D-xylose to D-xylulose catalyzed by rXylA2.** B | Blank containing buffer and Seliwanoff's reagent. Reactions containing 0.1 M of D-xylose, Seliwanoff's reagent and rXylA2 at concentrations of: 5x | 0.25 mg.mL<sup>-1</sup>, 3x | 0.15 mg.mL<sup>-1</sup>, and 1x | 0.05 mg.mL<sup>-1</sup>; F | positive control, composed of 0.1 M of D-fructose, buffer and Seliwanoff's reagent. All buffers used were composed of 50 mM Tris-HCl (pH 8.0), 100 mM NaCl.



**Figure S2. Conversion activity of D-fructose to D-glucose catalyzed by rXylA2.** Three assays with different concentrations of the enzyme were performed. The enzyme concentrations used (in μg.ml<sup>-1</sup>) were 20, 60 and 100. The graph shows the means of measurements performed in triplicate, at 25°C, after two (black) and three (gray) hours of reaction. Error bars indicate the standard error of the mean (SEM).