

**Supplemental Figure 2.** Steady state enzyme kinetics, and pH and temperature optima for recombinant RNMT using (*S*)-reticuline and (*R*)-reticuline as substrates. Substrate kinetics for reticuline (A) and AdoMet (B) were determined at 30°C and pH 7.0. Incubation time (1 h) and protein quantity (1.5  $\mu\text{g}$ ) were optimized prior to kinetic analysis to ensure linearity of product formation. Each point and associated error bars represent the mean product formation  $\pm$  SD of three independent replicates. The pH (C) and temperature optima (D) were determined using (*R*)-reticuline as the substrate. Maximum velocity, substrate affinity, turnover number and catalytic efficiency were determined based on Michaelis-Menten kinetics.

