



Figure S1

Schematic representation of APGM catalytic mechanism. Cap is colored in cyan and core domain in blue. Abbreviations: $G1P$, α -glucose 1-phosphate; $G6P$, glucose 6-phosphate; $G16BP$, α -glucose 1,6-bisphosphate.

(1) Enzyme activation by phosphorylation of Asp8. (2-3) Substrate binding with closure of cap domain over the core domain. (4) Formation of $G16BP$ intermediate. (5) Inversion of intermediate conformation, likely by its release from the active site and re-binding. (6) Release of final product and regeneration of activated form of the enzyme.