

Supporting Information

HybridDock: a hybrid protein-ligand docking protocol integrating protein- and ligand-based approaches

Sheng-You Huang,^{†,*} Min Li,[‡] Jianxin Wang,^{‡,*} and Yi Pan^{‡,§}

[†]Research Support Computing, University of Missouri Bioinformatics Consortium, and Department of Computer Science, University of Missouri, Columbia, MO 65211 USA

[‡]School of Information Science and Engineering, Central South University, Changsha 410083, China

[§]Department of Computer Science, Georgia State University, Atlanta, GA 30302, USA

Key Words: Protein-ligand docking, molecular docking, ligand-based similarity, protein-ligand interactions, CSAR exercises

*Corresponding Authors: huangshe@missouri.edu (S.Y.H.); jxwang@mail.csu.edu.cn (J.W.)

Figure S1: Binding energy scores vs. experimentally measured affinity data for our hybrid docking protocol and MDock on the 10 ligands against the DIG-binding protein for CSAR 2013 Phase 3.

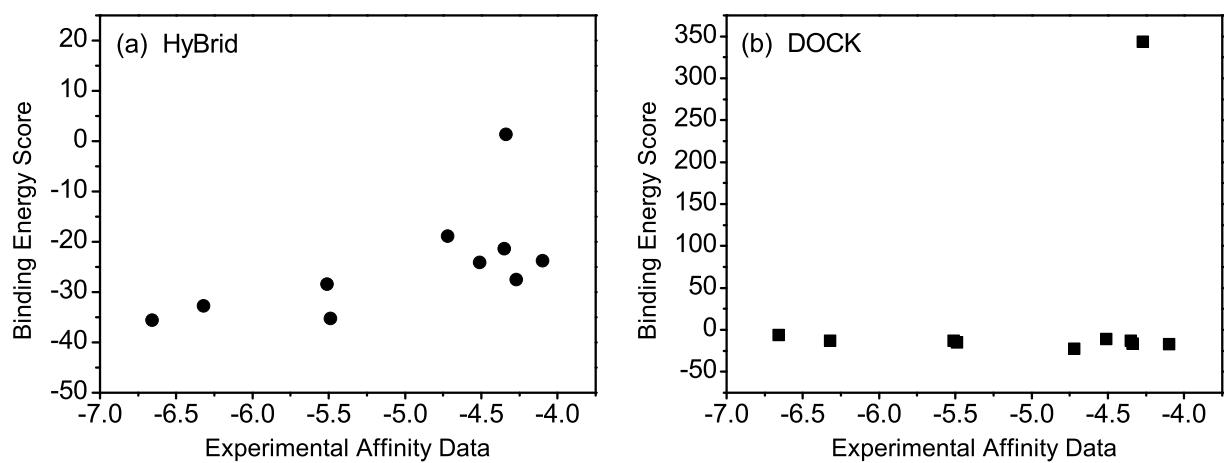


Figure S2: Binding energy scores vs. experimentally measured affinity data for our hybrid docking protocol and MDock for CSAR 2014 Phase 2: A. FXA (163 ligands), B. SYK (276 ligands), and C. TRMD (31 ligands).

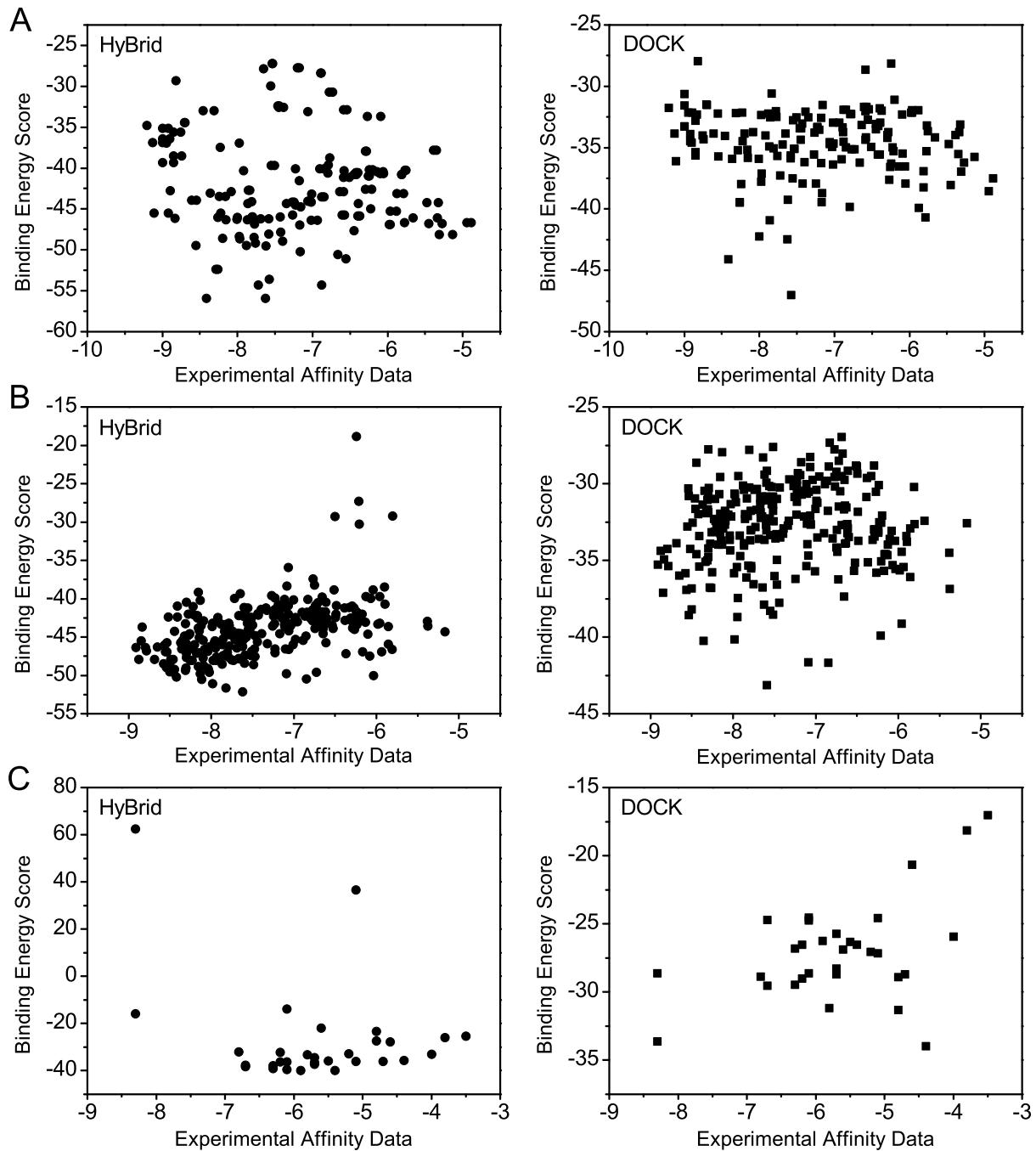


Figure S3: Ligand RMSDs predicted by our hybrid docking protocol and DOCK in binding mode predictions for three FXA (to the left of the blue dashed line), eight SYK (between the blue and green dashed lines), and 31 TRMD (to the right of the green dashed line) protein-ligand complex structures for CSAR 2014 Phase 2.

