

SUPPLEMENTAL DATA

Catalytic Site Conformations in Human PNP by ^{19}F -NMR and Crystallography

Javier Suarez[‡], Antti M. Haapalainen[‡], Sean M. Cahill[‡], Joseph Ho^{‡#}, Funing Yan[‡],

Steven C. Almo[‡] and Vern L. Schramm^{‡*}.

[‡]Department of Biochemistry, Albert Einstein College of Medicine of Yeshiva
University, 1300 Morris Park Avenue, Bronx, New York 10461.

* email: vern.schramm@einstein.yu.edu, phone: 718-430-2814, fax: 718-430-8565

[#]Current address: Institute of Biological Chemistry, Academia Sinica, 128 Academia
Road, Section 2, Nankang, Taipei, 115, Taiwan.

Running Title: ^{19}F -NMR of Human Purine Nucleoside Phosphorylase.

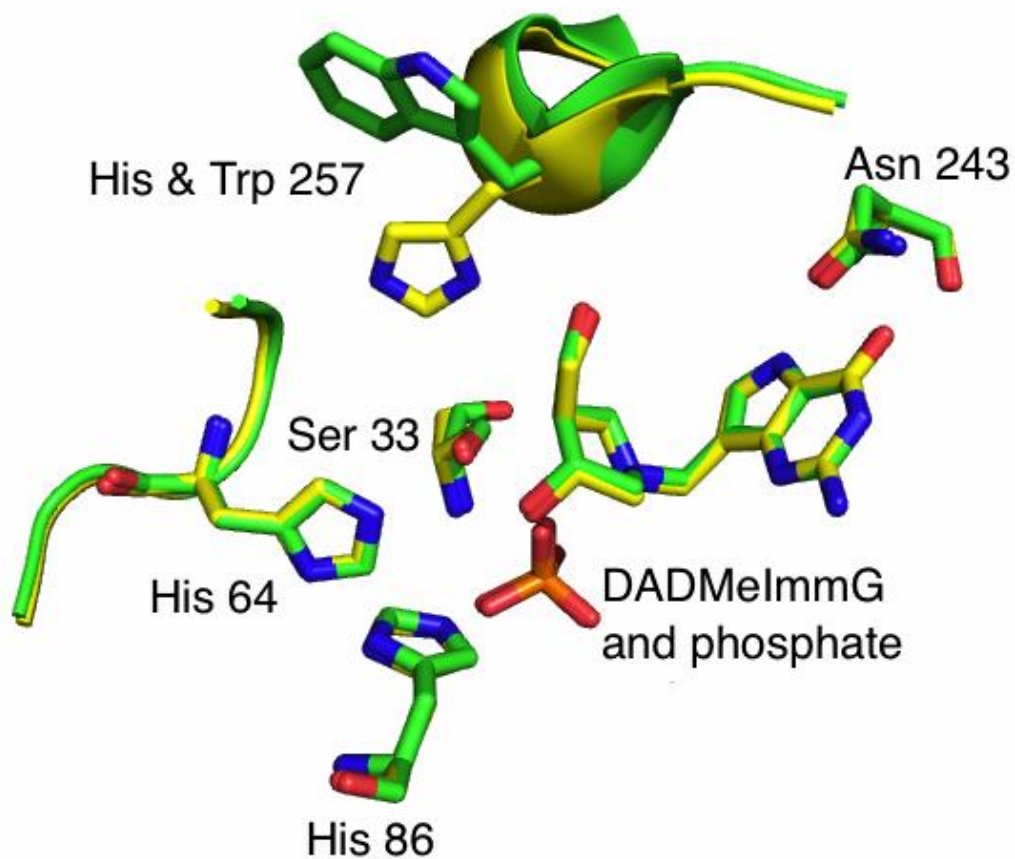


Figure S1:, related to **Figure 4. Human PNP complexes; structural overlays of the catalytic site.** (A). Overlap of the active site residues of WT PNP (yellow) and H257W-Leuko PNP (green) bound to DADMeImmG and phosphate.

Movie S1, related to Figures 4 and 7. The movie shows a secondary structural representation of phosphate bound human PNP (light brown) overlapped with a ribbon representation of the same structure (green). A conformational rearrangement in the active site of the green structure is shown upon binding of ligands (phosphate and the transition state analogue DADMeImmG). Movements are observed in the 257 region (show by the Trp257 residue) and the 64 loop (show by the His64 residue). Upon binding of ligands the PNP active site goes from a "open" to a "closed" conformation that can lead to catalysis.