Supporting Information

Reaction Intermediates in the Heme Degradation Reaction by HutZ from *Vibrio cholerae*

Takeshi Uchida,*[,a,b] Yukari Sekine,[b] Nobuhiko Dojun,[b] Ariel Lewis-Ballester,[c] Izumi Ishigami,[c] Toshitaka Matsui,[d] Syun-Ru Yeh,[c] and Koichiro Ishimori[a,b]

[a]Department of Chemistry, Faculty of Science, Hokkaido University, Sapporo 060-0810, Japan. E-mail: uchida@sci.hokudai.ac.jp

[b]Graduate School of Chemical Sciences and Engineering, Hokkaido University, Sapporo 060-8628, Japan

[c]Department of Physiology and Biophysics, Albert Einstein College of Medicine, Bronx, NY 10461, USA

[d]Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Katahira, Sendai, 980-8577, Japan

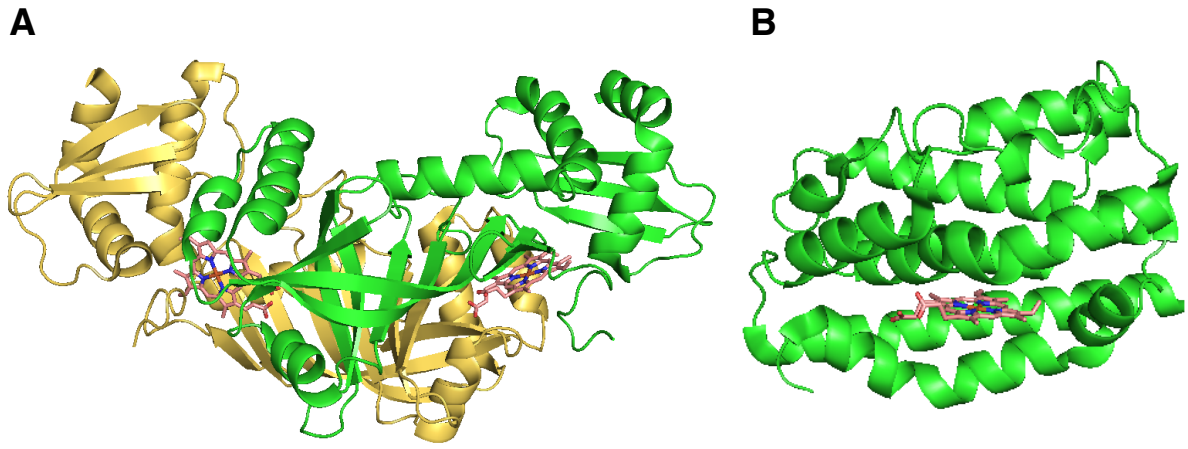

Fig. S1 Crystal structure of (A) HugZ from *Helicobacter pylori* (PDB ID 3GAS)[2] and (B) rat HO-1 (PDB ID 4G7L)[3]. HutZ is a dimer, while HO-1 is a monomer.

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HutZ  MDQQVKQERLQGRLEPEIKEFRQERKTLQLATVDAQGRPNVSYAPFVQNQEGYFVLISHI
IsdG  ------------------MKFMAEN---RLTLTKGTAKDIIERLYTRHGIETLEGFDGMF
                       :*  *.   :*: ... .:  :.     :. *    : . :

HutZ  ARHARNLEVNPQVSIMMIEDETEAKQLFARKRLTFDAVASMVERDSELWCQVIAQMGERF
IsdG  VTQTLEQEDFDEVKILTVWKSKQAFTDWLKS-DVFKAAHKHVR----------SKNEDES
      . :: : *   :*.*: : ...:*   : :.  .*.*. . *.          ::  :.

HutZ  GEIIDGLSQLQDFMLFRLQPEQGLFVKGFGQAYQVSGDDLVDFVHLEEGHRKISNG
IsdG  SPIINNKVITYDIGYSYMK-----------------------------------
      . **:.     *:    ::
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Fig. S2 Amino acid sequence comparison between HutZ and rat IsdG from *Staphylococcus aureus* using ClustalW2 (http://www.ebi.ac.uk/Tools/msa/clustalw2/).

References

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2 Y. Hu, F. Jiang, Y. Guo, X. Shen, Y. Zhang, R. Zhang, G. Guo, X. Mao, Q. Zou and D.-C. Wang, *J. Biol. Chem.*, 2011, **286**, 1537–1544.

3 M. Sugishima, K. Moffat and M. Noguchi, *Biochemistry*, 2012, **51**, 8554–8562.