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GcbC          -----REHANAQESATRGATTIAQLIDADVLRTVELYDLTLOGLIAAAQRDDLKDVS-
Pfl01_2295   ----SRERALEEVDVHGLNLTQALVTYSEGIVRQS----SALLLGLVERLETEGSGPVQI
Pfl01_2297   -----RSVFASARDSVTNLARATAQHAEDTIRQV----DVLTAGLAERVEGDGLQNLDV
Pfl01_3800   QIEQSRRODLANAQVSSANLTRAMAQQAEDTFLAA----DLVMTSLVDWVQEDGYGAAQK
              . . . . . : : : . : . . . . . * : : . . .

GcbC          PQIRHLALFDRSTTARFKGDILLDDKHGEVIADSSRVDPLPGNFADRDYFLAHAFNRDTG
Pfl01_2295   QRISLIDRQEPLMPQLSG-ITIIYDSQGRWLMSSNRPIPAGANSSDRAYFIHHRDDPSPE
Pfl01_2297   ARIHKLLVQQSKIMPQLHG-LFIYGPDGHWIVTDKEVTPETANNADRDYFYHRTHEARR
Pfl01_3800   PRLQRTFARRVQQLEQLHG-MFLFDREGQWVITSFPDLPRGNGVADREYFKFHQQNVSGV
              . : . . . . . : * : : . * : . . * . : ** ** * . .

GcbC          MFISRPFKPRCDDADQWRISFSRRISSNTGEFLGVAVASMKLDYFDQLFNSLDIGIDS
Pfl01_2295   TFIGPPIQSRTNQE----WVITVSRRFNDARGEFAVVAVTLGIENFLRLFGKIDVQEG
Pfl01_2297   VRIGQVVESRSTHD----LIIPISRRLNPNPDGSFAGVLLGTVKVSYFVDYYGDFRIDDKG
Pfl01_3800   AHIGPAIRSRENGE----WIIPISKRVNDRAGNFQGVLLAGIKMSYFDKFFKSFLDNDG
              * . . . * : . . * . . . * . * ** : : . * : : . . .

GcbC          TLNIINNDGILLAQKPYLQSDSIGKSFAARPNVVRILRDSSGNGSFNSISSMDHQORLYT
Pfl01_2295   AIGLSYTDGTLVRYPFREQD-MGRNFSKSPIYAKYLVDS-VGTASFTSSLDGVERLYA
Pfl01_2297   ALVLAMRDGTILVRRPFITSV-VGKSLANSEIFKTYLPNAN-QGIVQIRAVVDDTERLYG
Pfl01_3800   TMFLGMDGTLARRPFDES-IGTSLAKGEIYQKLLPNAS-AGTAMIDSVVDGVTRLYG
              : : : ** : * . * : . : * : : . * : . . * : : * ***

GcbC          YSRVGNLPLTVIVALSSSEEVFGAWR---
Pfl01_2295   FRKSDRLPLITTVALGKREALAARTEA
Pfl01_2297   YRALTTYPLVVEAGLSRDSIVAPWRQ-
Pfl01_3800   YRQLESYPLVVAASSSRDTILQGWYDR-
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3 **Fig. S6. CLUSTAL alignment of the amino acid sequence of the CACHE domains of GcbC,**
4 **Pfl01_2295, and Pfl01_2297.** The red amino acids indicate the conserved residues of the RXYF
5 motif. The residues highlighted in blue are proposed to make up the putative citrate-binding
6 pocket of the CACHE domain of GcbC. The RXYF motif and residues R139 and R162 of GcbC are
7 conserved in the CACHE domains of Pfl01_2295, Pfl01_2297, and Pfl01_3800.

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