

g

cggcacacgcatcctgtcggcctctctctccctctctctgcttggacctcgcgctactct
caagacccacacagacacacacacatagacaaggagaaattgagtcgactaggcatt**atg**
M

ggagccgtgctgagtggtggtttggggatgggttaagtccaggcacgcaggtgggtgccgtc
G A V L S V V W G W L S P G T Q V G A V
acatttcctgaagaggggaagtctgggccccgaagcagacggtccggataaaaccacaggc
T F P E E G S L G P E A D V P D K T T G
Ctcaactcttcgtcaccgcaccgccatctaccgcacttgggatcttgtgagaccgaatccg
L T L R H R T A I Y R T W D L V R P N P
Aaactgcacggaataaatttggttcctcacaatggtccaggaagagccagtactacagacc
K L H G I N L F L T M F Q E E P V L Q T
agattcaaaggcttcgctggcaagtctattgaggaactcaagaacagcaagcgactggca
R **F** K G F A G K S I E E L K N S K R L A
gcacatggcactactgtggtcatggctatcacggcaatgggtggacaacttggaggacgtg
A **H** G T T V V M A I T A M V D N L E D V
tcagtctggtgagttactcaagaacacaggagccaatcacagggaccgaggtgtacc
S V L V E L L K N T G A N **H** R D R G V P
aagggagactttgagctgctggcgccagtcctgggttaggttccctgaaggataacttgggg
K G D F E L L A P V L V R F L K D N L G
tcagcttggagccccgtggcagaggaagcttggactcaggctatgaaagtcacatgca
S A W S P V A E E A W T Q A M K V I N A
gttatcttcaacttcttatgatgcatgatgctcctcccttcccttctcctcctccctc
V I F T S Y D A ***

cgctctttgactctccctccccgctccttctccgtctcctcccacaacacactcaatgcc
cagtccttcagtcctactacaataacaagctcatcacacttcactcactttaatatagtac
tgtagtaatgtatcttttttcccaagataacttactttattacaaccacacctaagctgc
aaaatacattaagaagtgtttgtcatgtctacacactcactcacacacacacacacac
acacacacatccataaaataaaattaacatataataaagaatattattatacatctc

Supplemental Fig. 2. Nucleotide and amino acid sequences of *C.maenas* hemoglobin (CmaHb). The start codon ATG is in bold face, the stop codon is indicated by three asterisks, the polyadenylation signal is underlined. In the amino acid sequence, the highly conserved key residues important for oxygen binding, such as the phenylalanine at CD1 as well as the characteristic proximal and distal histidines in the positions E7 and F8 are shaded in black.