Paralogs in the CEGs (A) Duplication events in CEGs in the lineages leading to vertebrates and early vertebrates. Based on the gene trees provided by Ensembl, 71 duplication events were
observed in 64 CEGs. The taxon names were given by Ensembl. (B) Molecular
phylogenetic tree of G6PD/H6PD genes inferred in a maximum-likelihood framework
based on 239 amino acid sites unambiguously aligned. This phylogeny shows that the
chicken gene identified by CEGMA as a member of KOG0563 (red) is not orthologous
to G6PD (blue) but is included in the group of H6PD genes, which duplicated before the
split between the choanoflagellate and metazoan lineages. A blue arrowhead indicates
the branch from which a chicken G6PD ortholog would be splitting off. Bootstrap
probabilities over 70 in the maximum-likelihood analysis and posterior probabilities
based on a Bayesian framework are shown at the nodes, in order.