

**Figure S9. Network analysis of MHC orthologous protein families in** *Methanoperedenaceae*. Each cluster represents related MHCs. The colour of the nodes represents the taxonomic lineage based on GTDB classification. The size of the nodes represents the number of CXXCH heme binding motifs identified in the proteins. The thickness of the lines represents amino acid identity between the two nodes. The shaded boxes represent the orthologous protein families.