

Zedelius *et al.*

**Table S5.** Genome-based prediction of *cbb*<sub>3</sub>-type oxidases (oxidases with high O<sub>2</sub>-affinity) in strain HdN1.

Predicted gene (product) of strain HdN1						BLASTP hit used for annotation			
Gene name	Identifier	Start (bp)	Amino acids	Predicted function	InterPro <sup>a</sup> COG <sup>b,c</sup>	Gene	Organism <sup>d</sup>	E-value	Acc. no.
<i>ccoP</i>	HDN1F_11960	1,483,054	298	Cytochrome <i>c</i> oxidase <i>cbb</i> <sub>3</sub> -type, subunit III	IPR004678 COG2010	<i>ccoP</i>	Azose	1e-65	Q5P0X3
<i>ccoQ</i>	HDN1F_11970	1,483,947	76	Probable cytochrome <i>c</i> oxidase, subunit CcoQ	IPR008621 COG4736	<i>ccoQ</i>	Azose	1e-04	Q5P0X4
<i>ccoO</i>	HDN1F_11980	1,484,180	207	Cytochrome <i>c</i> oxidase, <i>cbb</i> <sub>3</sub> -type, subunit II	IPR003468 COG2993	-	-	-	-
<i>ccoN</i>	HDN1F_11990	1,484,818	480	Cytochrome <i>c</i> oxidase, <i>cbb</i> <sub>3</sub> -type, subunit I	IPR004677 COG3278	-	-	-	-
<i>ccoN</i>	HDN1F_27210	3,357,106	498	Cytochrome- <i>cbb</i> <sub>3</sub> oxidase, subunit I	IPR004677	<i>ccoN</i>	Azose	1e-145	Q5P0X6
<i>ccoO</i>	HDN1F_27220	3,358,613	216	Cytochrome- <i>cbb</i> <sub>3</sub> oxidase, subunit I	IPR003468 COG2993	<i>ccoO</i>	Azose	3e-54	Q5P0X5
<i>ccoQ</i>	HDN1F_27230	3,359,260	63	Cytochrome <i>c</i> oxidase subunit	IPR008621	-	-	-	-
<i>ccoP</i>	HDN1F_27240	3,359,444	307	Cytochrome- <i>cbb</i> <sub>3</sub> oxidase, subunit III	IPR004678 COG2010	<i>ccoP</i>	Azose	2e-48	Q5P0X3

<sup>a</sup> IPR003468: family, cytochrome *c* oxidase, mono-heme subunit; IPR004677: family, cytochrome *c* oxidase *cbb*<sub>3</sub>-type, subunit I; IPR004678: family, cytochrome *c* oxidase *cbb*<sub>3</sub>-type, subunit III; IPR008621: family, *cbb*<sub>3</sub>-type cytochrome oxidase, cytochrome *c* subunit.

<sup>b</sup> COG, cluster of orthologous groups.

<sup>c</sup> COG2010: CccA, cytochrome *c*, mono- and diheme variants; COG2993: CcoO, *cbb*<sub>3</sub>-type cytochrome oxidase, cytochrome *c* subunit; COG3278: CcoN, *cbb*<sub>3</sub>-type cytochrome oxidase, subunit I; COG4736: *cbb*<sub>3</sub>-type cytochrome oxidase, subunit 3.

<sup>d</sup> Abbreviation for organism: Azose, *Azoarcus*-related denitrifying Betaproteobacterium strain EbN1.