

Construction and Characterization of a Recombinant Cytochrome c_L of *Methylophaga aminosulfidovorans* SK1 in *Escherichia coli*

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Abstract

C-type cytochrome and methanol dehydrogenase (MDH) from marine methanol-oxidizing bacterium, *Methylophaga aminosulfidovorans* SK1, were purified and characterized. The electron flow rate from MDH to cytochrome c_L was higher than that from MDH to cytochrome c_H , indicating that the physiological primary electron acceptor for MDH is cytochrome c_L . We cloned the gene for cytochrome c_L and expressed it in *Escherichia coli* under anaerobic conditions. We designed the expression vector with a C-terminal His-tag. The recombinant cytochrome c_L has the same molecular weight and displays the same absorption spectra, both in reduced and in oxidized forms, as the native cytochrome c_L isolated from *M. aminosulfidovorans* SK1.

References

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