

Chromium Precipitation Activity and Molecular Characterization of Sulfate-Reducing Bacteria

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Abstract	Chromium is one of the metals used in many areas of industry., However, chromium is toxic to organisms when present in large quantities in the environment. One of the method for treatment of hazardous waste containing chromium in the aquatic environment can be removed by bioremediation using sulfate-reducing bacteria (SRB). Therefore, the purpose of this research were to analyze the chromium precipitation activity of sulfate-reducing bacteria isolated from sulfate reducing bioreactor and its molecular identification using 16S rRNA gene sequences. The result observed that the isolate of sulfate-reducing bacteria (KGP1 strain) has chromium tolerancy ability up to 5 ppm. It also showed that the strain KGP1 could precipitate chromium up to 0.141 ppm (79 %) on 5 days incubation. Based on 16S rRNA gene sequences, this strain identified as <i>Desulfovibrio aerotolerans</i> .
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Author	DWIANA MUFLIAH YULIANTI, S.Si, M.Sc.