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**Characterization of the Small Cryptic Plasmid, pMGD2, of  
*Klebsiella* sp. KCL-2.**

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The strain *Klebsiella* sp. KCL-2 isolated from polluted marine by crude oil. showed strong degradation activity for crude oil. This strain had several cryptic plasmids. One of the cryptic plasmids from the oil degrading bacterium *Klebsiella* sp. KCL-2, the small plasmid pMGD2 has been identified and characterized. This plasmid has a size of 3.8 kb with unknown functions. We constructed several recombinant subclones from pMGD2. The nucleotide sequence of the segment of the plasmid was determined and two open reading frames were detected. The ORF1, encoded the replication initiator protein(Rep) gene and ORF2 encoded a truncated IS5(transposase) gene. Analysis of the nucleotide sequence showed that homology in amino acid sequence between Rep protein and *Pleisiomonas shigelloides*, *E. coli*, *Shigella sonnei*, *Edwordssiella ictaluri*, and *Halomonas elongator* was 70, 52, 52, 50 and 45 % respectively.