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Cloning and characterization of an oxiranedicarboxylate hydrolase from *Labrys* sp. WH-1

Key words: Oxiranedicarboxylate hydrolase (ORCH), L(+)-2, 3-Dihydrobutanedioic acid, Characterization, Cloning

Research Summary

This study aimed to clone and characterize the ORCH from *Labrys* sp. WH-1, which was carried out in the following aspects:

- Purification the ORCH from the wild strain
- Characterization of enzymatic properties
- Gene cloning
- sequence analysis

Innovation points

• Gene sequence (GenBank accession No. MK994516) of the ORCH was obtained.

• **Best** catalytic efficiency and thermal stability among the reported ORCHs.

• Provide an alternative catalyst for preparation of L(+)-2,3-dihydrobutanedioic acid.

