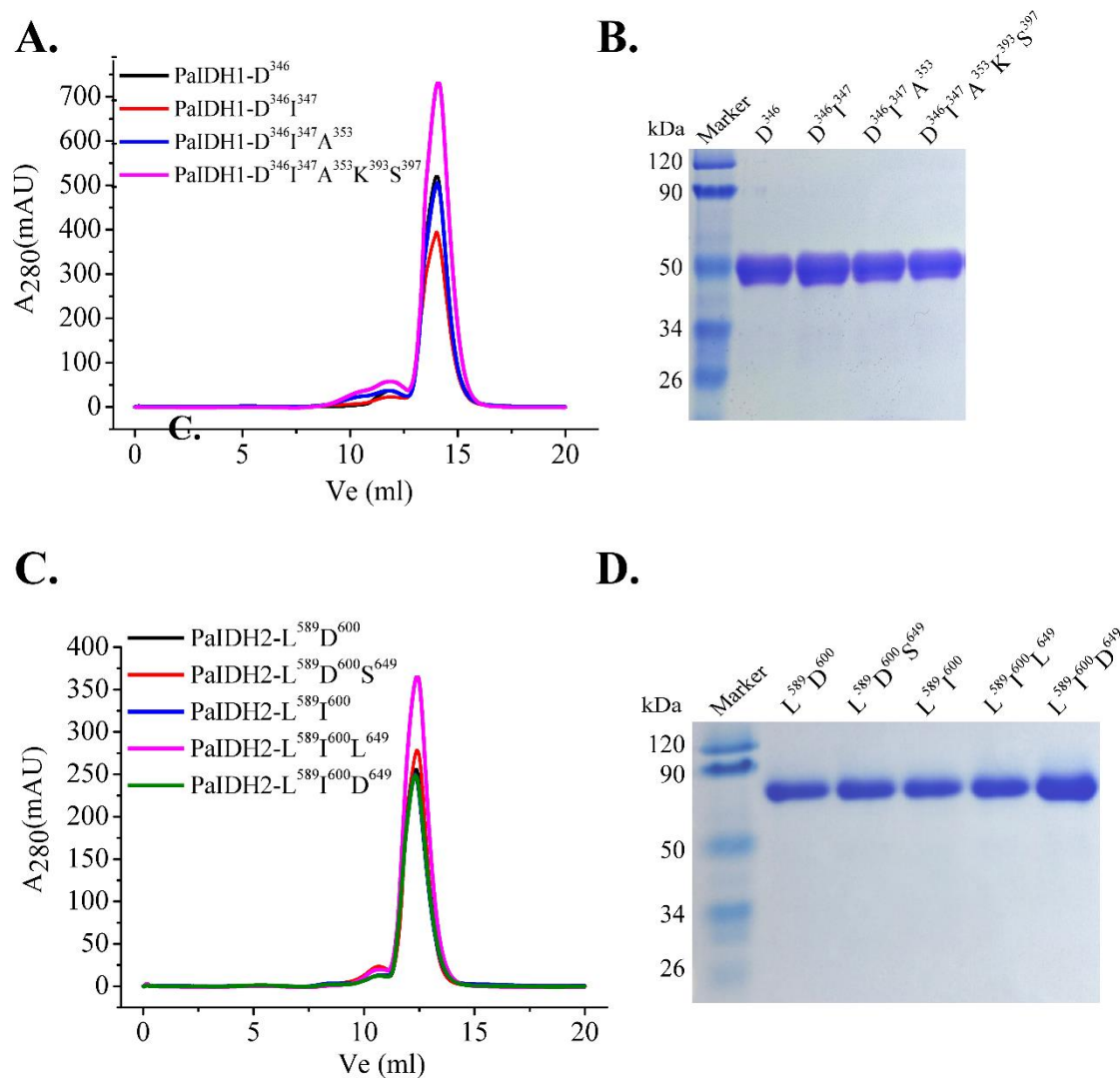


**Table S1.** Primers for the construction of wild-type and mutant *PET-28b (+)-PaIDH1*.

Primers	Sequences (5' - 3')
PaIDH1-F	GGAATTCCATATGGGATACCAAAAGATCCAGGTGC
PaIDH1-R	ATACCGCTCGAGTTACATCTTGGCAATCATCG
K346D-F	CCCACGGCACCGCGCCGGATTACGCCGGCCAGGACAAG
K346D-R	ATCCGGCGCGGTGCCGTGGGTCGCCTCG
K346D/Y347I-F	CCCACGGCACCGCGCCGGATATTGCCGGCCAGG
K346D/Y347I-R	AATATCCGGCGCGGTGCCGTGGGTCGCCTCG
K346D/Y347I/V353A-F	GCCGGCCAGGACAAGGCAAACCCGGGTTCG
K346D/Y347I/V353A-R	TGCCTTGTCTGGCCGGCAATATCCGGCG
Y393K/R397S-F	CGCCGCCAAGACCGTGACCAAAGACTTCGAAAGCCTGATGGACGGCGCG
Y393K/R397S-R	CGCGCCGTCCATCAGGCTTTTGAAGTCTTTGGTCACGGTCTTGGCGGCG

**Table S2.** Primers for the construction of wild-type and mutant *PET-28b (+)-PaIDH2*.

Primers	Sequences (5' - 3')
PaIDH2-F	GGAATTCCATATGTCCATCCGCTCGAAGATCACC
PaIDH2-R	ATACCGCTCGAGTTAGGCCAGGCTGTTCGATCG
H589L-F	CGGCTCGGCACCCAAGCTGGTCCAGCAAC
H589L-R	CAGCTTGGGTGCCGAGCCGCCGGCGCCGG
R600D-F	GGAAGAGAACTACCTGCTGTGGGACTCCC
R600D-R	CAGCAGGTAGTTCTCTTCCACCAGTTGCTGG
R649S-F	CAACAAGTCGCCGTCGAGCAAGGTCGGCGAC
R649S-R	GCTCGACGGCGACTTGTTGTTGTCCAGCAG
R600L-F	CTGGTGGAAGAGAACTACCTGCTGTGGGACTCCCTGGG
R600L-R	CAGCAGGTAGTTCTCTTCCACCAGTTGCTGG
R600I-F	CTGGTGGAAGAGAACTACCTGATTTGGGACTCCCTGGG
R600I-R	AATCAGGTAGTTCTCTTCCACCAGTTGCTGG
R649L-F	CAACAAGTCGCCGTCGCTGAAGGTCGGCGAC
R649L-R	CAGCGACGGCGACTTGTTGTTGTCCAGCAG
R649D-F	CAACAAGTCGCCGTCGGATAAGGTCGGCGAC
R649D-R	ATCCGACGGCGACTTGTTGTTGTCCAGCAG



**Figure S1.** Determination of the molecular mass of PaIDH1 and PaIDH2 mutants. The flow rate was 0.5ml/min and the proteins in the fractions were monitored at 280 nm. (A) Result of gel filtration chromatography of PaIDH1 mutants. (B) SDS-PAGE of PaIDH1 mutants. (C) Result of gel filtration chromatography of PaIDH2 mutants. (D) SDS-PAGE of PaIDH2 mutants.