Supporting Information

Yang et al. 10.1073/pnas.0902377106

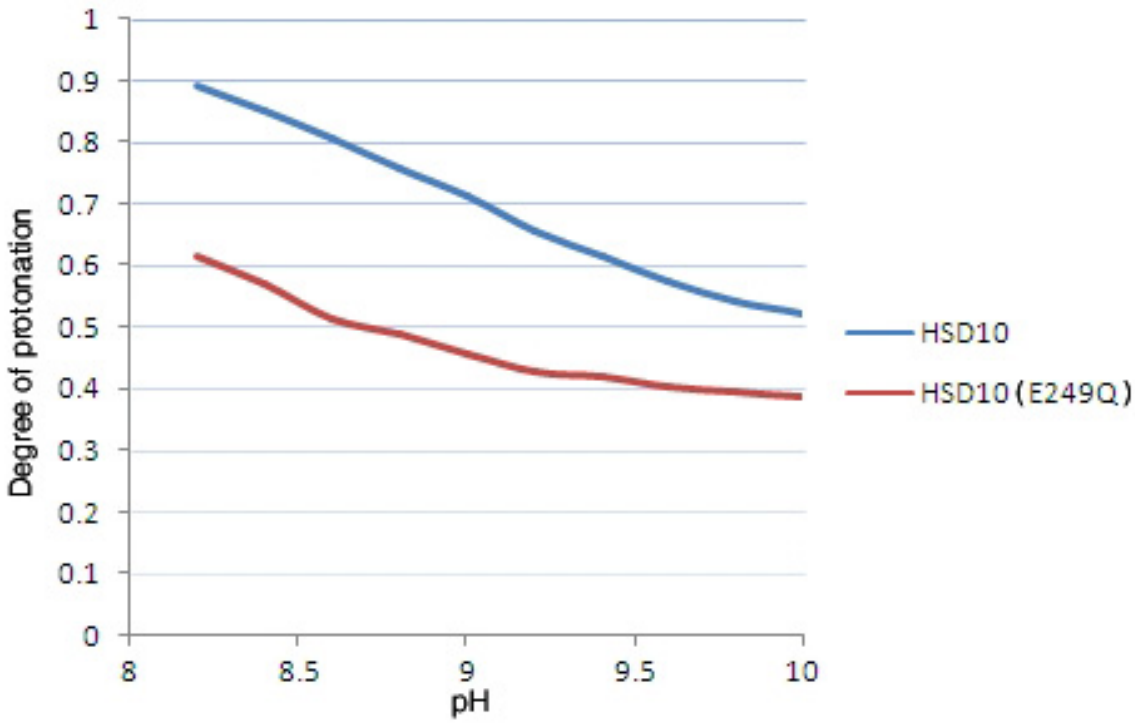

Fig. S1. A portion of the predicted titration curves for lysine 172 in HSD10 (blue line) and HSD10(E249Q) (redline).

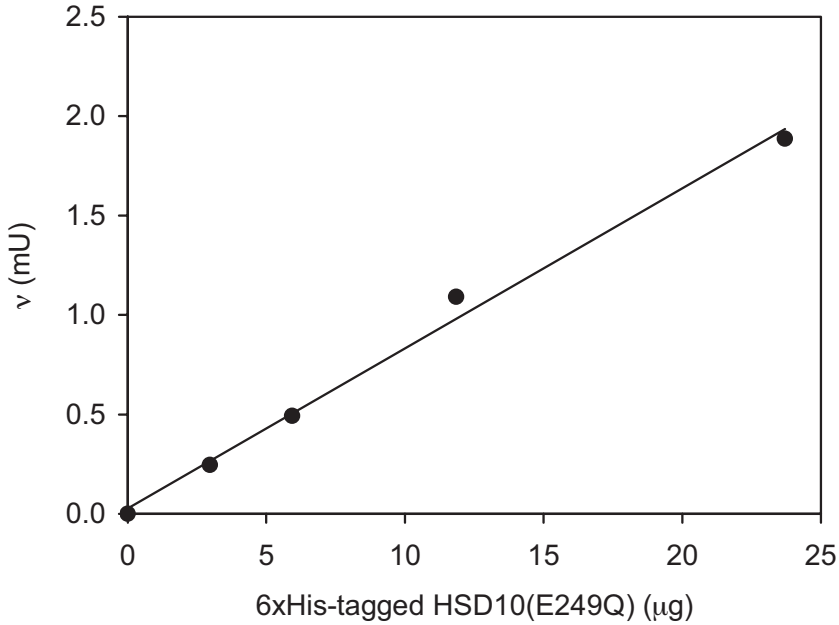

Fig. S2. Initial velocities of the oxidative reaction of allopregnanolone (51 μM) as a function of the amount of mutant enzyme 6×His-tagged HSD10(E249Q).

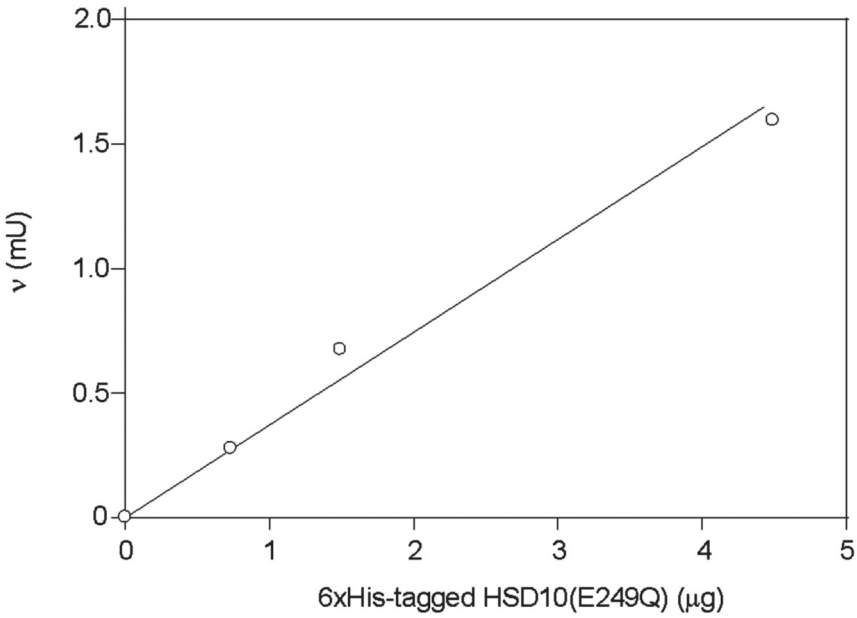

Fig. S3. Initial velocities of the dehydrogenation of 2-methyl-3-hydroxybutyryl-CoA (16 μM) as a function of the amount of mutant enzyme 6×His-tagged HSD10(E249Q).

Table S1. Nucleotide sequences of synthesized oligomers

Name of oligomer	Nucleotide sequence (5′ → 3′)
PCR primer	
HSDF	CCATCAAGCTCACAGGTGGTTAGGAG
HSDR	GGGCGTGTGGCAGATCGTATATCCTC
Sequencing primer	
HSDR1	TGTCCCAACGTAATCACGAGACTAGG
HSDR2	AGTCTTCGGACCTCTTGTCCG
DHADFF1	TTCAAACCGGCACACCTA
DHADF2	TACTGTGACGGGTAACGA
DHADR2	TTGGAAGCAGAGTATGCAGC
HSDF1A	AGGTTGCAGTGAGCTGAGATCGTGCCATTGC
HSDF3	GATCACGTGAGATCAGGAGTTC
HBHADPE3	CAGGTCCAGAAGCACAGCAGAGGCT
Mutagenic primer	
E776C	CCCATTCCTCAATGGACAGGTCATCCGGCTGG
E776G	CCAGCCGGATGACCTGTCGATTGAGGAATGGG
R419T	CACCTTCAATGTGATCTGCCTGGTGGCTGGTG
R419A	CACCAGCCACCAGGCAGATCACATTGAAGGTG
6xHis insert	
6HISF	TATGCATCACCATCACCATCACATGGCAGCAGCGTGTCGGAGCGTGAAG
6HISR2	GCCCTTCACGCTCCGACACGCTGCTGCCATGTGATGGTGATGGTGATGCA