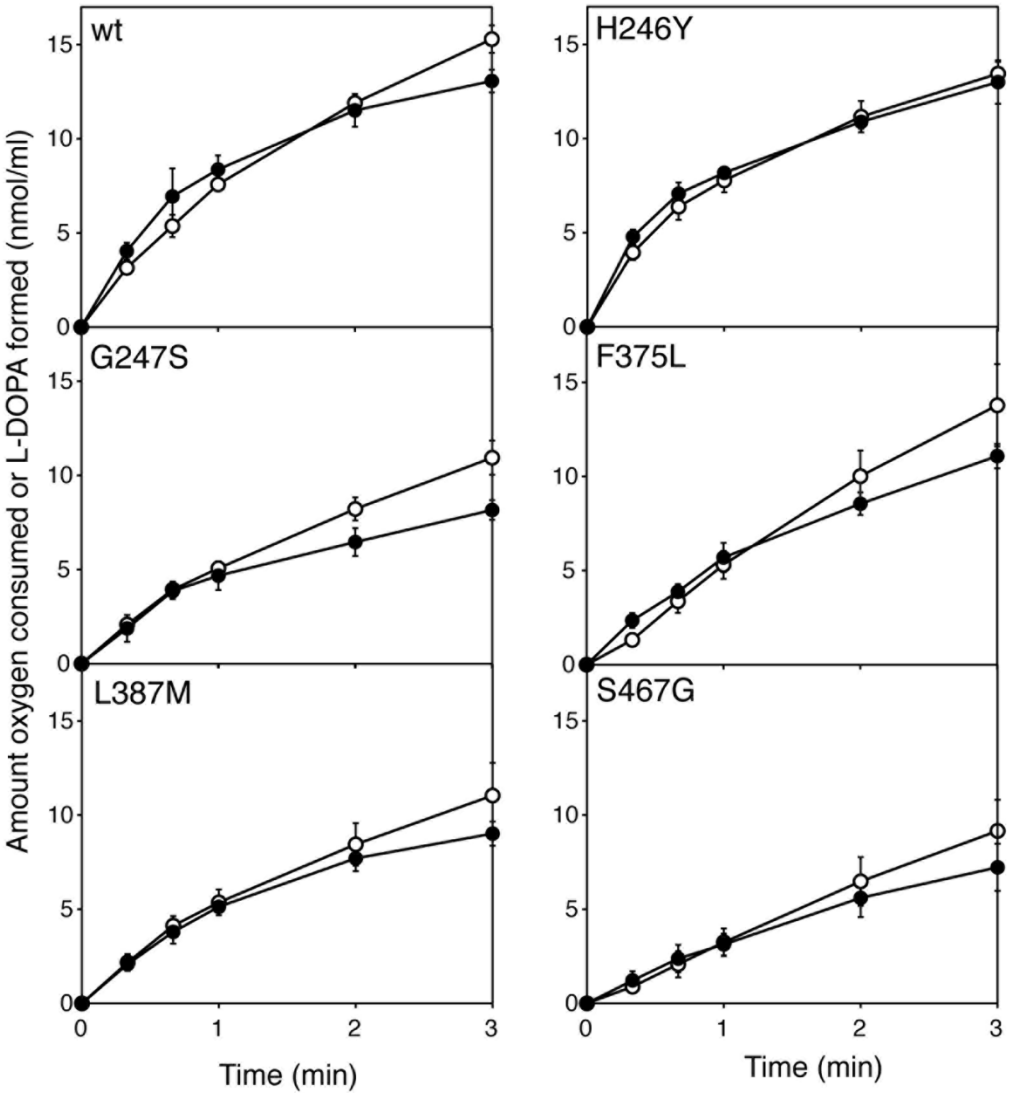

Supp. Figure S1. Oxygraphy of wt-TH and THD mutants. Oxygen consumption (○) and L-DOPA formation (measured by HPLC) (●) by wt-TH (A), TH p.His246Tyr (B), TH p.Gly247Ser (C), TH p.Phe375Leu (D), TH p.Leu387Met (E), and TH p.Ser467Gly (F). (n = 3 ± SD for all experiments).

Supp. Table S1. Primers used for pcr-based mutagenesis using the QuikChange mutagenesis (Stratagene, La Jolla, CA, USA)

p.Cys207Tyr	Forward 5'-TGTCAGAGCTGGACAAG**TAT**CATCACCTGGTCAC
	Reverse 5'-GTGACCAGGTGATG**ATA**CTTGTCCAGCTCTGACA
p.Asp227Gly	Forward 5'-CGGGCTTCTCG**GGC**CAGGTGTACCG
	Reverse 5'-CGGTACACCTG**GCC**CGAGAAGCCCG
p.Ala241Thr	Forward 5'-GCTGATTGCTGAGATC**ACC**TTCCAGTACAGGCA
	Reverse 5'-TGCCTGTACTGGAA**GGT**GATCTCAGCAATCAGC
p.His246Tyr	Forward 5'-CCTTCCAGTACAGG**TAC**GGCGACCCGATT
	Reverse 5'-AATCGGGTCGCC**GTA**CCTGTACTGGAAGG
p.Gly247Ser	Forward 5'-CCAGTACAGGCAC**AGC**GACCCGATTCC
	Reverse 5'-GGAATCGGGTC**GCT**GTGCCTGTACTGG
p.Glu259Gly	Forward 5'-TACACCGCCGAG**GGG**ATTGCCACCTGG
	Reverse 5'-CCAGGTGGCAAT**CCC**CTCGGCGGTGTA
p.Pro301Ala	Forward 5'-ACCGGGAAGACAATATC**GCC**CAGCTGGAGG
	Reverse 5'-CCTCCAGCTG**GGC**GATATTGTCTTCCCGGT
p.Phe309Ser	Forward 5'-GGACGTCTCCCGC**TCC**CTGAAGGAGCG
	Reverse 5'-CGCTCCTTCAG**GGA**GCGGGAGACGTCC
p.Arg319Pro	Forward 5'-CTTCCAGCTG**CCG**CCTGTGGCCG
	Reverse 5'-CGGCCACA**GGC**GGCAGCTGGAAG
p.Arg328Trp	Forward 5'-CTGCTGTCCGCC**TGG**GACTTCCTGG
	Reverse 5'-CCAGGAAGTC**CCA**GGCGGACAGCAG
p.Cys359Phe	Forward 5'-CCTGAGCCGGAC**TTC**TGCCACGAGCTG
	Reverse 5'-CAGCTCGTGGCA**GAA**GTCCGGCTCAGG
p.Phe375Leu	Forward 5'-GGCCGACCGCACC**TTG**GCGCAGTT
	Reverse 5'-AACTGCGC**CAA**GGTGCGGTCGGCC
p.Ala376Val	Forward 5'-GACCGCACCTTC**GTG**CAGTTCTCGCAG
	Reverse 5'-CTGCGAGAACTG**CAC**GAAGGTGCGGTC
p.Leu387Met	Forward 5'-GCCTGGCGTCC**ATG**GGGGCCTCG
	Reverse 5'-CGAGGCCCC**CAT**GGACGCCAGGC

p.Ile394Thr	Forward 5'-GGGCCTCGGATGAGGAA**ACT**GAGAAGCTGTCC
	Reverse 5'-GGACAGCTTCTC**AGT**TTCCTCATCCGAGGCCC
p.Thr399Met	Forward 5'-AAATTGAGAAGCTGTCC**ATG**CTGTACTGGTTCACG
	Reverse 5'-CGTGAACCAGTACAG**CAT**GGACAGCTTCTCAATTT
p.Gly414Arg	Forward 5'-CTGTGTAAGCAGAAC**AGG**GAGGTGAAGGCCT
	Reverse 5'-AGGCCTTCACCTC**CCT**GTTCTGCTTACACAG
p.Arg441Pro	Forward 5'-GAGCCTGAGATT**CCG**GCCTTCGACCC
	Reverse 5'-GGGTCGAAGGC**CGG**AATCTCAGGCTC
p.Gln459X	Forward 5'-ACCAAGACCAGACGTAC**TAG**TCAGTCTACTTCGTG
	Reverse 5'-CACGAAGTAGACTGA**CTA**GTACGTCTGGTCTTGGT
p.Ser467Gly	Forward 5'-CTACTTCGTGTCTGAG**GGC**TTCAGTGACGCCAA
	Reverse 5'-TTGGCGTCACTGAA**GCC**CTCAGACACGAAGTAG
p.Pro492Leu	Forward 5'-CGTGAAGTTCGAC**CTG**TACACGCTGGCCA
	Reverse 5'-TGGCCAGCGTGTA**CAG**GTCGAACTTCACG
p.Asp498Gly	Forward 5'-CGCTGGCCATC**GGC**GTGCTGGACAG
	Reverse 5'-CTGTCCAGCAC**GCC**GATGGCCAGCG
p.Leu510Gln	Forward 5'-GCGGCGCTCC**CAG**GAGGGTGTCC
	Reverse 5'-GGACACCCTC**CTG**GGAGCGCCGC

Primers were bought from Invitrogen™. Nucleotide numbering uses +1 as the A of the ATG translation initiation codon in the reference sequence, with the initiation codon as codon 1. NCBI Reference Sequence: NM_199292.2.