

Table S1. Oligonucleotides used in this study

PRIMER	SEQUENCE	COMMENTS	
Primers used in construction of knockout vectors			
		Primer use, construct Deleted locus or insertion site	
PMiniHXF	5' -GATAAGCTTGATCAGCACGAAACCTTG-3'	HXGPRT cassette forward primer	
PMiniHXR	5' -CCGCTCTAGAAGTAGTGGATCCC-3'	HXGPRT cassette reverse primer	
DHODF1	5' -TTGGGTAAACGCCAGGGTTTCCCAGTACGACGGT TTAAACCACCAAGAGTCACCTCCACGTC-3'	RH DHODH KO 5' forward primer, pΔDHOD, pΔDHODCD	TGGT1_124080, chrIV Δ bp2056674 to bp2046431
DHODR1	5' -GCGGGTTTGAATGCAAGTTTCGTGCTGATCAAAC TAGTGACCGACAGCTGGTCAAGAGTG-3'	RH DHODH KO 5' reverse primer	
DHODF2	5' -TTCTGGCAGGCTACAGTGACACCGCGGTGGAGGAC TAGTGCCGCTGTTGGACGAAAGCAC-3'	RH DHODH KO 5' reverse primer	
DHODR2	5' -GTGAGCGGATAACAATTTACACAGGAAACAGCGC GGCCGCGACGGTGGAAAGACATACGGCATG-3'	RH DHODH KO 5' reverse primer	
DHODHAF1	5' -TTGGGTAAACGCCAGGGTTTCCCAGTACGACGGT TTAAACTGGCTTGGGTGAGGTCGGTG-3'	RH DHODH HA TAG 5' forward primer, pDHOD/HA	TGGT1_124080, chrIV bp2046368 (insertion site)
DHODHAR1	5' -GCGGGTTTGAATGCAAGTTTCGTGCTGATCAAAC TAGTCTCAAAGAGCGTAATCTGGAACATCGTATGGGTA GTCGAATTTCCGAGCCTGCAGC-3'	RH DHODH HA TAG 5' reverse primer	
DHODHAF2	5' -TTCTGGCAGGCTACAGTGACACCGCGGTGGAGGAC TAGTACAACATGTCTGGGGTCCGGTTCG-3'	RH DHODH HA TAG 3' forward primer	
DHODHAR2	5' -GTGAGCGGATAACAATTTACACAGGAAACAGCGC GGCCGCGACGGTGGAAAGACATACGGCATG-3'	RH DHODH HA TAG 3' reverse primer	
Primers used for genotype validation			
DHODHACXF	5' -GAACTCCATTCCGCTCGAATGGC-3'		
DHODCXR	5' -GCACGAATCGCCATGTCCGC-3'		
5'DHFRCXF	5' -GTTGGCCTACGTGACTTCTGATG-3'		
3'DHFRCXR	5' -ACTGCGAACAGCAGCAAGATCG-3'		
Primers used for construction of tagged TgDHODs for immunolocalization			
DHOD.LIC.9385.F	5' -TACTTCCAATCCAATTTAGCCGCGAGTCGGTCTGAG TTGCGCGGAAG-3'	forward primer introducing LIC sequences	
DHOD.LIC.YFP.R	5' -TCCTCCACTTCCAATTTTAGCGTTCGAATTTCCGGAGC CTGCAGCTTTTTC-3'	reverse primer introducing LIC sequences	
DHOD.Mfel.QC.F	5' -GAAGCCATTCGAATCAATTGAGCCAAGACTGCAG-3'	forward primer introducing Mfel site	
DHOD.Mfel.QC.R	5' -CTGCAGTCTTGGCTCAATTGATTCGGAATGGCTTC-3'	reverse primer introducing Mfel site	
TgDHOD.BgIII.F	5' -AGATCTATGGCACCTCTTACCATGCATTTCCAAGGG CGTTTCG-3'	forward primer for exogenous expression of DHOD	
TgDHOD.myc.Ascl.R	5' -GGCGCGCCTCATAGGTCTTCTTCTGAGATAAGCTTC TGCTCGTTCGAATTTCCGGAGCCTGCAG-3'	reverse primer for exogenous expression of DHOD	
Primers used for construction of TgDHOD plasmid for recombinant protein expression in <i>E. coli</i>			
VSSMs	5' -GTAAACCATATGGTGAGCAGTATGATCTACTCCTTC-3'	forward primer TgDHOD-VSSM	
MIYSs	5' -GTAAACCATATGATCTACTCCTTCTACGAGCCG-3'	forward primer TgDHOD-MIYS	
FYEPs	5' -GTAAACCATATGTTCTACGAGCCGGTAAACATCCGTC-3'	forward primer TgDHOD-FYEP	
TgDHODas	5' -AGGCCTCATATGTCAGTTCGAATTTCCGGAGCCTGCAG-3'	reverse primer for all expression constructs	