

Variant	Stability effect	Activity effect	Selectivity effect	Ref
D105A	loss of stability	loss of activity	none	[1,6]
Y154F		loss of activity		
Y235F		loss of activity		
Y154F/Y235F		loss of activity		
H300A or H300Q		loss of activity		
H300N		some activity for R,R-TSO		
E35Q/H300N	loss of stability	some activity for R,R-TSO	none	[6]
Y149F	loss of stability	decreased activity	decrease for R,R-TSO; comparable with WT for S,S-TSO	[2]
H153F				
Y149F/H153F				
K179Q	loss of stability	increased activity towards R-enantiomer	none	[3]
E215Q		increased activity towards R-enantiomer	loss of regioselectivity; very promiscuous	
R236K or R236Q		increased activity towards S-enantiomer	higher discrimination favouring C-1 attack	
F33V or F33Y	no data	no data	none	[4]
W106F/L109I or W106F/L109V			higher discrimination favouring S-enantiomer	
V141K			lower discrimination favouring S-enantiomer	
V141K/I155V			higher discrimination favouring R-enantiomer	
W106L/L109Y/V141K/I155V				
V141T or V141Q				
V141T/L145I or V141T/L145T				
I180L/F189C			lower discrimination favouring S-enantiomer	
I180V				
F189I or F189V				
V141Q/I155L			none	
I180L				
I180C/F189V				
W106Y/L109I/I180F	no data	no data	shifted preference on attack on C-1 in R-SO and on C-2 in R,R-enantiomer of <i>trans</i> -2-methylstyrene oxide	[5]
W106Y/L109I/L145R/I155Y				
W106Y/L109I				
V141K/I155V			shifted preference on attack on C-2 in S-SO and on C-2 in S,S-enantiomer of <i>trans</i> -2-methylstyrene oxide	[5,7]
W106L/L109Y/V141K/I155V			shifted preference on attack on C-1 in S-enantiomer	[5,7,8]
W106L/L109Y/I155V			(2,3-epoxypropyl)benzene and on C-2 in R,R-enantiomer of <i>trans</i> -2-methylstyrene oxide	[5]
W106L/L109Y/V141K/I155V/F189L				
W106L/L109Y/V141K/I155V/F189L/L266F			shifted preference on attack on C-1 in R-SO	[5,7]
W106L/L109Y/V141K/I155V/F189L/L266G			shifted preference on attack on C-2 in R,R-enantiomer of <i>trans</i> -2-methylstyrene oxide	[5]

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