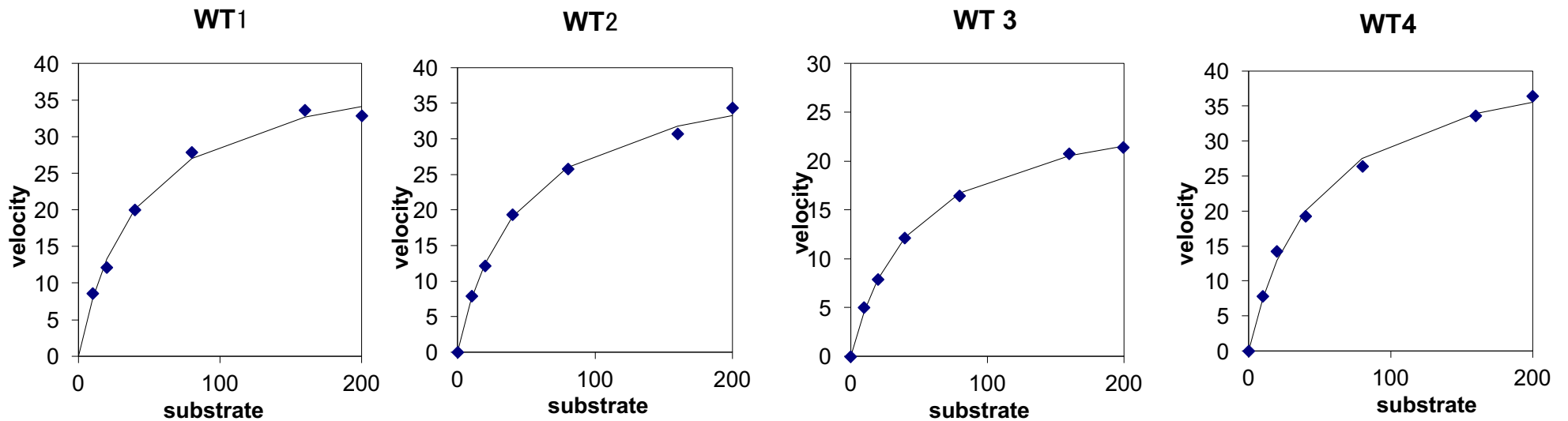
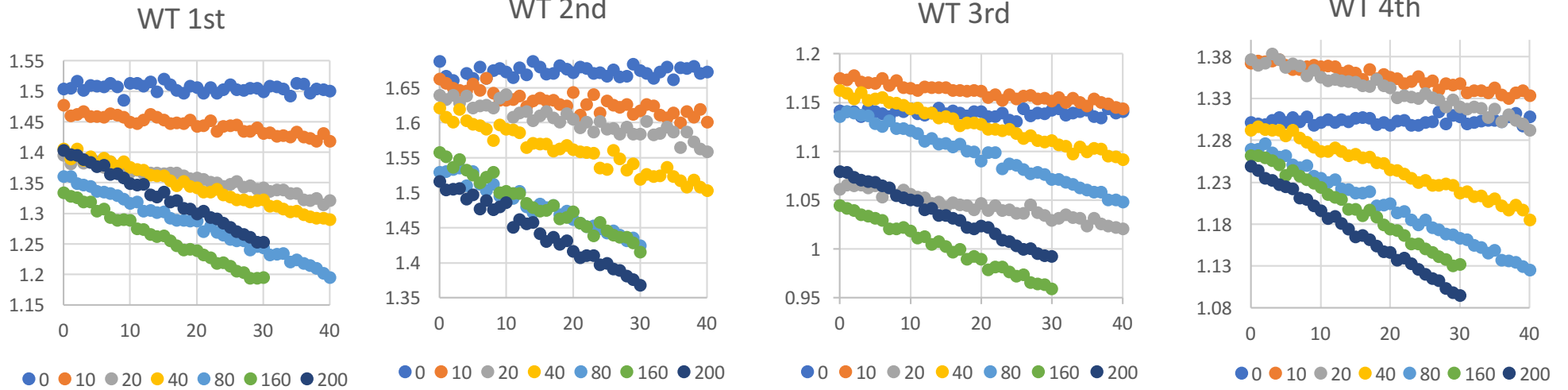


# Diaphorase activity of wild-type FNR

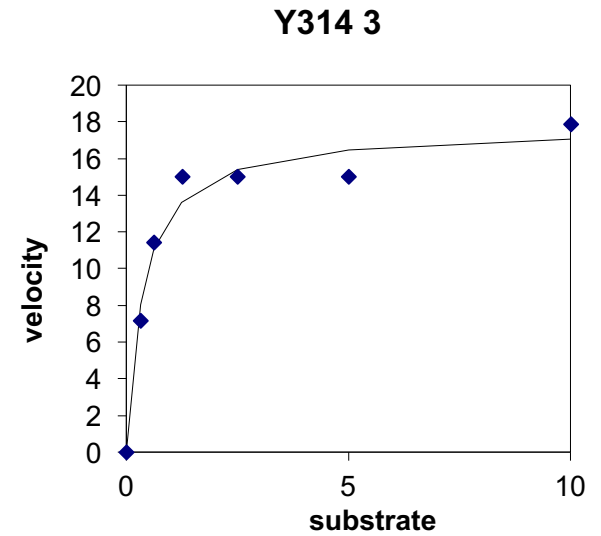
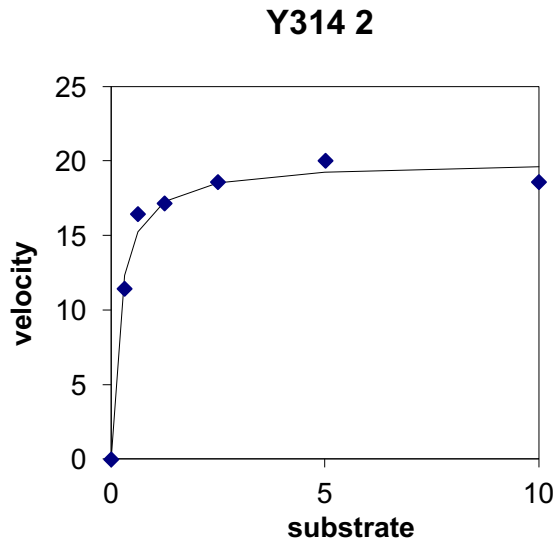
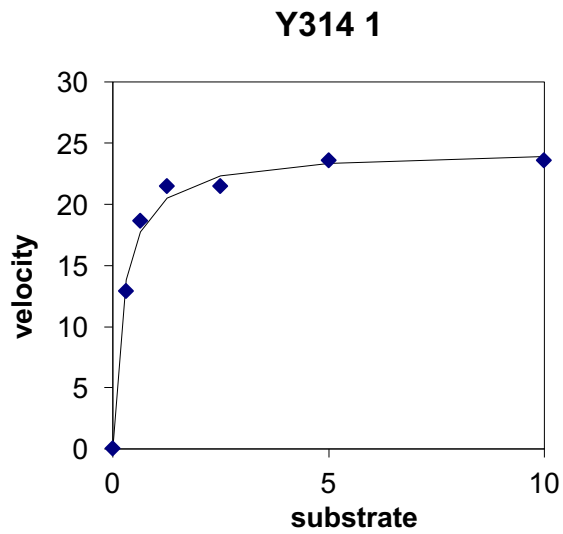
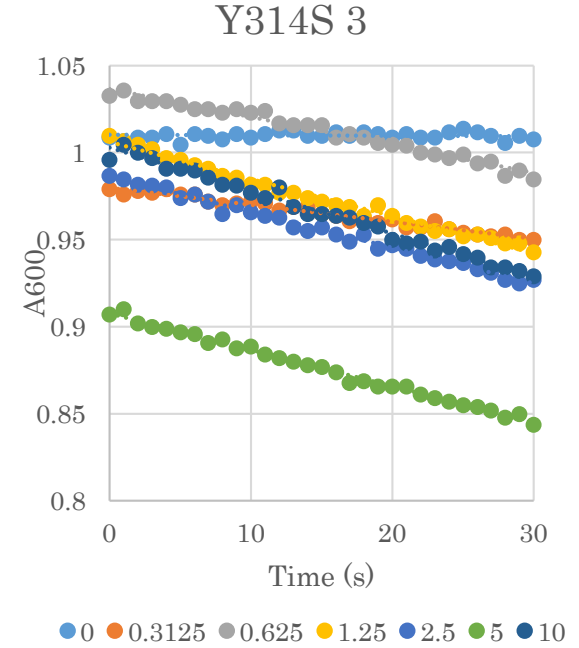
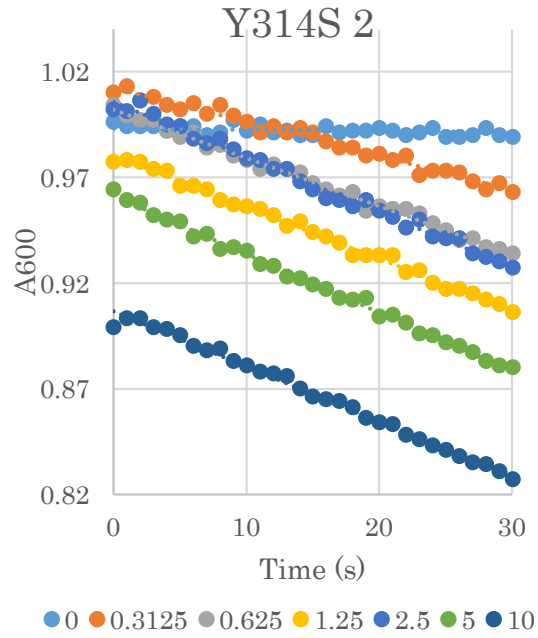
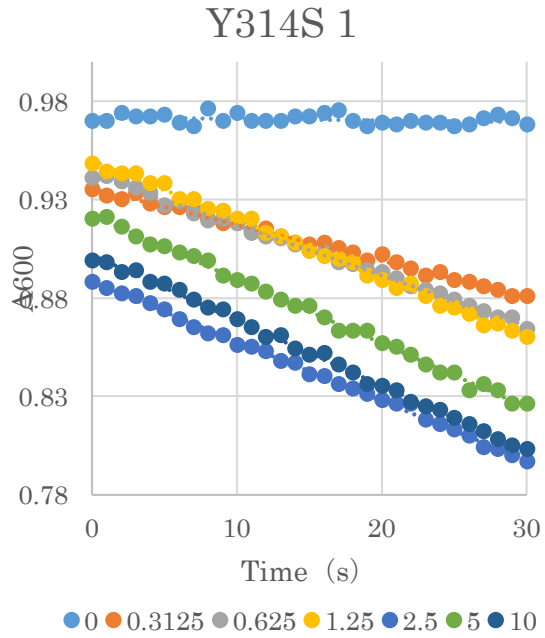
X-axis: time(s) , Y-axis: A600nm, numbers below X-axis: concentration of NADPH( $\mu\text{M}$ )



WT	1	2	3	4	Average	SD
Km ( $\mu\text{M}$ )	49.53	41.29	47.31	43.97	45.525	3.145612023
Vmax ( $2e/s$ )	44.95	38.81	26.62	42.1	38.12	6.985975236

$k_{\text{cat}}$  ( $e^-/s$ ) Ave 76 SD 14

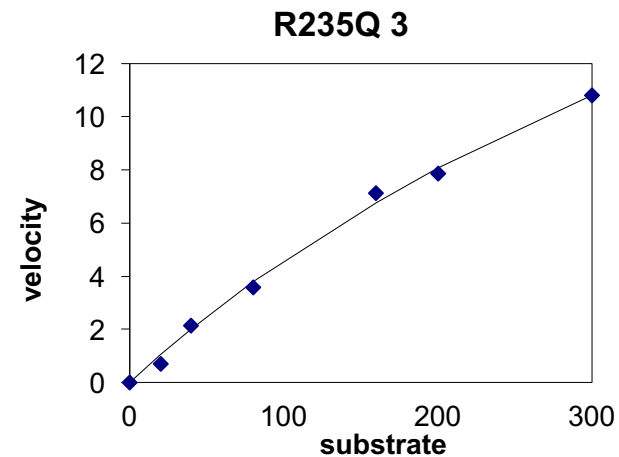
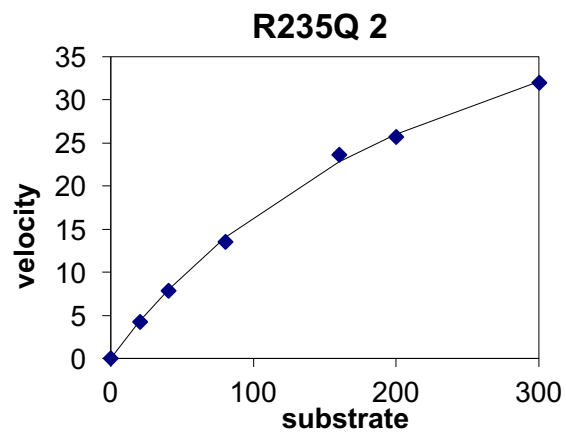
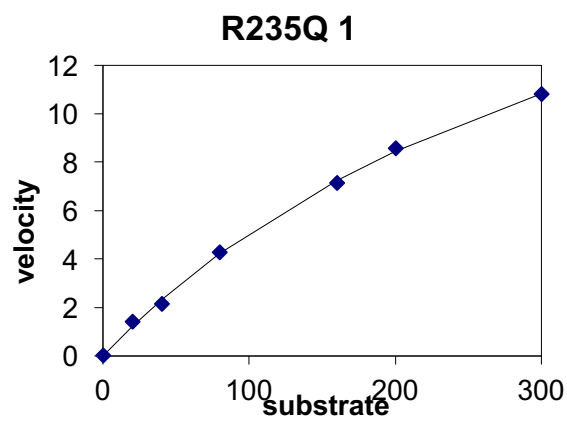
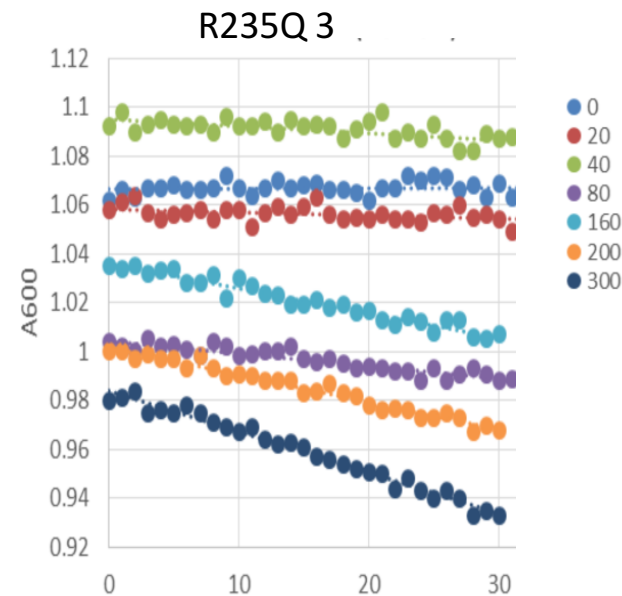
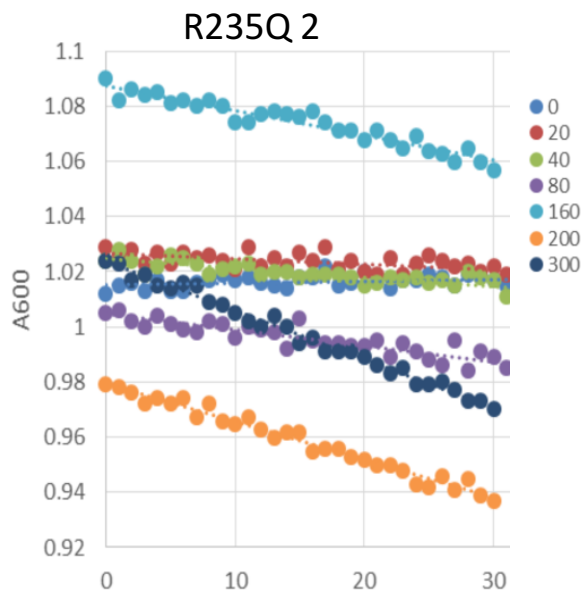
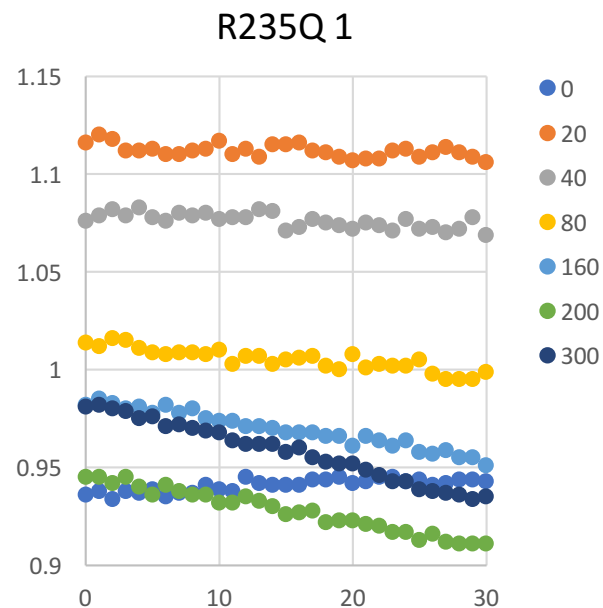
# Diaphorase activity of Y314S FNR



Y314S	1	2	3	Average	SD
Km ( $\mu\text{M}$ )=	0.195210554	0.240869156	0.373870879	0.26998353	0.075787479
Vmax (2e/s)=	20.00299715	24.47986808	17.69554103	20.72613542	2.81649547

$k_{\text{cat}}$  ( $e^-/s$ ) Ave 41 SD 6

# Diaphorase activity of R235Q FNR

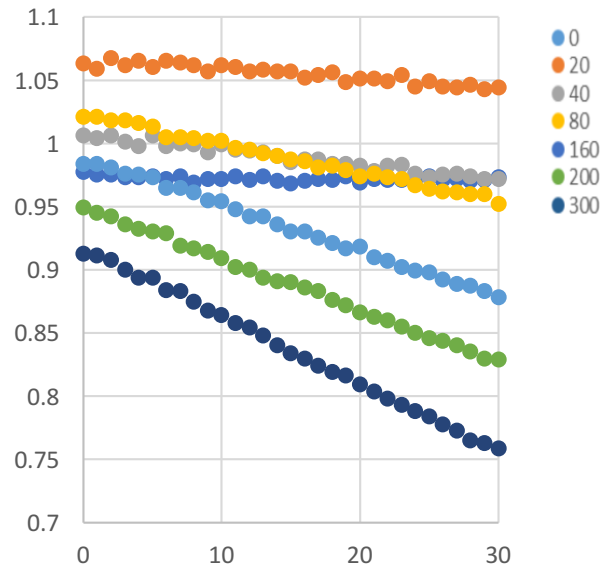


R235Q	1	2	3	Average	SD
Km ( $\mu\text{M}$ )	417	407	664	496	119
Vmax (2e/s)	26.2	28.2	34.9	29.8	3.7

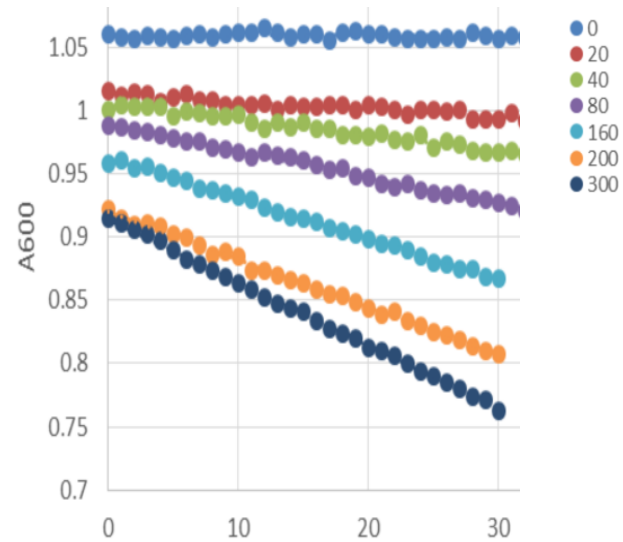
$k_{\text{cat}}$  (e<sup>-</sup>/s) Ave 60 SD 7

# Diaphorase activity of R244Q FNR

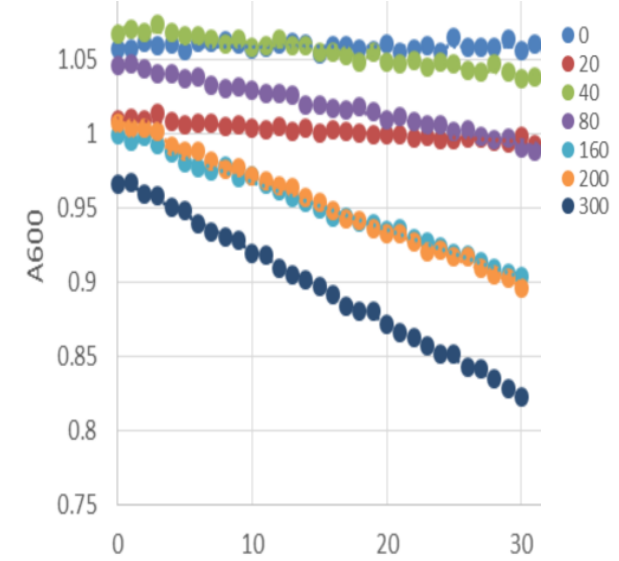
R244Q 1



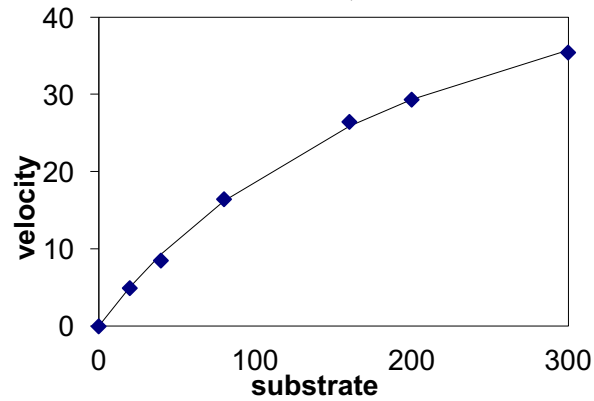
R244Q 2



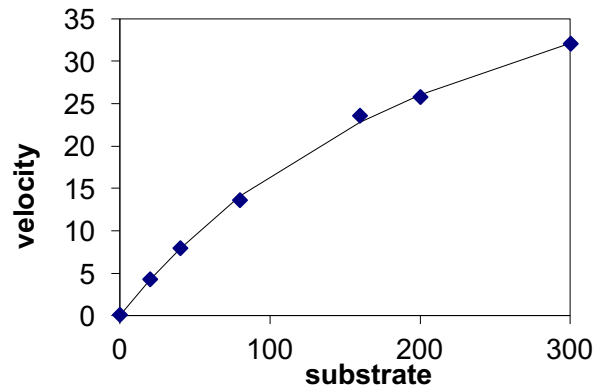
R244Q 3



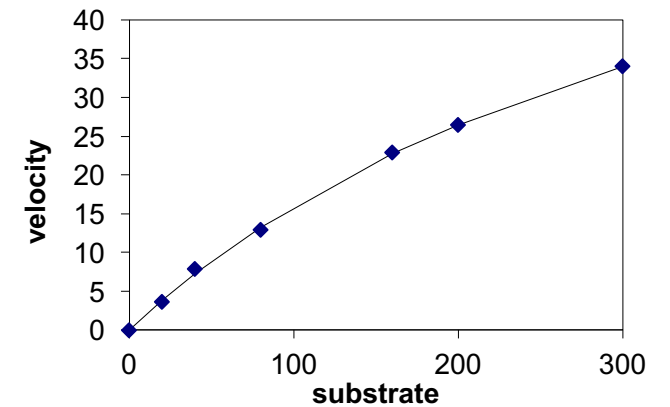
R244Q 1



R244Q 2



R244Q 3



R244Q	1	2	3	Average	SD
Km ( $\mu\text{M}$ )	252	280	391	308	60
Vmax (2e/s)	67.1	62.8	78.2	69.4	6.5

$k_{\text{cat}}$  (e-/s) Ave 139 SD 13