TABLE 9.1 **Summary of Michaelis-Menten kinetics in reversible inhibition modes.**

Inhibition	Michaelis-Menten Equation	Lineweaver-Burk Equation	$V_{max(app)}$	$K_{M(app)}$
None	$V_0 = \frac{V_{max}[S]}{K_M + [S]}$	$\frac{1}{V_0} = \frac{K_M}{V_{max}}\frac{1}{[S]} + \frac{1}{V_{max}}$	V_{max}	K_M
Competitive	$V_0 = \frac{V_{max}[S]}{K_M\left(1 + \frac{[I]}{K_I}\right) + [S]}$	$\frac{1}{V_0} = \frac{K_M}{V_{max}}\left(1 + \frac{[I]}{K_I}\right)\frac{1}{[S]} + \frac{1}{V_{max}}$	V_{max}	$K_M\left(1 + \frac{[I]}{K_I}\right)$
Uncompetitive	$V_0 = \frac{V_{max}[S]}{K_M + [S]\left(1 + \frac{[I]}{K_I}\right)}$	$\frac{1}{V_0} = \frac{K_M}{V_{max}}\frac{1}{[S]} + \frac{1}{V_{max}}\left(1 + \frac{[I]}{K_I}\right)$	$\frac{V_{max}}{\left(1 + \frac{[I]}{K_I}\right)}$	$\frac{K_M}{\left(1 + \frac{[I]}{K_I}\right)}$
Non-competitive	$V_0 = \frac{V_{max}[S]}{\left(1 + \frac{[I]}{K_I}\right)(K_M + [S])}$	$\frac{1}{V_0} = \frac{K_M}{V_{max}}\left(1 + \frac{[I]}{K_I}\right)\frac{1}{[S]} + \frac{1}{V_{max}}\left(1 + \frac{[I]}{K_I}\right)$	$\frac{V_{max}}{\left(1 + \frac{[I]}{K_{I(b)}}\right)}$	K_M