

Table 1

Substrate inhibition models.

Publication	Authors	Equation
[24]	Andrews, (1968)	$\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1 + \frac{S_1^2}{K_{I,1}}} \quad (1)$
[25]	Aiba et al., (1968)	$\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1} e^{\left(-\frac{S_1}{K_{I,1}}\right)}$
[26]	Yano and Koga, (1969)	$\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1 + \frac{S_1^3}{K_{I,1}^2}} \quad (2)$
[27]	Wayman and Tseng, (1976)	$\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1} - i(S_1 - S_\theta) \quad (3)$
[28]	Luong, (1987)	$\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1} \left(1 - \frac{S_1}{S_m}\right)^n \quad (4)$
[29]	Alagappan and Cowan, (2001)	$\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1 + \frac{S_1^2}{K_{I,1}}} - i(S_1 - S_\theta) \quad (5)$