

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) | $\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1} e^{-\left(\frac{S_1}{K_{I,1}}\right)} \quad (2)$ |
| [26] | Yano and Koga, (1969) | $\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1 + \frac{S_1^3}{K_{I,1}^2}} \quad (3)$ |
| [27] | Wayman and Tseng, (1976) | $\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1} - i(S_1 - S_\theta) \quad (4)$ |
| [28] | Luong, (1987) | $\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1} \left(1 - \frac{S_1}{S_m}\right)^n \quad (5)$ |
| [29] | Alagappan and Cowan, (2001) | $\mu_1 = \frac{\mu_{\max,1} S_1}{K_{S,1} + S_1 + \frac{S_1^2}{K_{I,1}}} - i(S_1 - S_\theta) \quad (6)$ |