|  |  |  |
| --- | --- | --- |
| **[S] mM** | VouM/min | Vo (uM/min) with [I]=3mM |
| 0.1 | 4.76 | 1.9 |
| 0.2 | 9.09 | 3.64 |
| 0.5 | 20 | 8 |
| 1 | 33.33 | 13.33 |
| 2 | 50 | 20 |
| 5 | 71.43 | 28.57 |
| 10 | 83.33 | 33.33 |

Enzyme w/out inhibitor: Enzyme w/ inhibitor:

 (1/Vi) = (Km/Vmax)(1/[S]) + 1/Vmax (1/Vi) = (Km/Vmax)(1/[S]) + 1/Vmax

 y = 0.0200x + 0.0100 y = 0.0501x + 0.0248

 y-intercept is 1/Vmax = .0100 y-intercept is 1/Vmax = 0.0248

 **Vmax = 100** Vmax = 40.322

 The slope is Km/Vmax = 0.0200 The slope is Km/Vmax = 0.0501

 Km/100 = 0.0200 Km/40.322 = 0.0501

 Km = 0.0200 x 100 Km = 0.0501 x 40.322

 **Km = 2** Km = 2.02

**I is a mixed inhibitor.**