$$[Y] = \frac{klaa}{[CT]} - k2 * [Y] - \frac{k3 * [CP] * [Y]}{[CT]} \tag{1}$$

$$[CP] = -\frac{k3 * [CP] * [Y]}{[CT]} + k6 * [M] + k8_p * [CP] - k9 * [CP] \tag{2}$$

$$[pM] = \frac{k3 * [CP] * [Y]}{[CT]} - [pM] * (k4prime + k4 * (\frac{[M]}{[CT]})^2) + k5_P * [M] \tag{3}$$

$$[M] = [pM] * (k4prime + k4 * (\frac{[M]}{[CT]})^2) - k5_P * [M] - k6 * [M] \tag{4}$$

$$[YP] = k6 * [M] - k7 * [YP] \tag{5}$$

$$[C2] = -k8_p * [CP] + k9 * [CP] \tag{6}$$

$$[YT] = [Y] + [YP] + [M] + [pM] \tag{7}$$

$$[CT] = [C2] + [CP] + [M] + [pM] \tag{8}$$