$$\begin{array}{cccc} -\frac{R}{2} \rightarrow R_{A} & P_{1} = B_{A}^{R} \\ R_{A} \xrightarrow{P_{1}} \rightarrow & P_{2} = kdegR_{A} * R_{A} \\ R_{A} \xrightarrow{P_{1}} \rightarrow C_{A} & P_{3} = kon_{A} * L_{A} * R_{A} \\ C_{A} \xrightarrow{P_{1}} \rightarrow R_{A} & P_{4} = koff_{A} * C_{A} \\ C_{A} \xrightarrow{P_{2}} \rightarrow & P_{3} = ke_{A} * C_{A} \\ \xrightarrow{P_{3}} \rightarrow ITF_{A} & P_{6} = B_{A}^{TF} \\ ITF_{A} \xrightarrow{P_{3}} \rightarrow ITF_{A} & P_{1} = kdegTF_{A} * ITF_{A} \\ ITF_{A} \xrightarrow{P_{3}} \rightarrow ATF_{A} & P_{3} = \frac{k_{1A} * C_{A} * ITF_{A}}{K_{M1A} + ITF_{A}} \\ ATF_{A} \xrightarrow{P_{3}} \rightarrow ITF_{A} & P_{9} = \frac{k_{2A} * P_{A} * ATF_{A}}{K_{M2A} + ATF_{A}} \\ ATF_{A} \xrightarrow{P_{3}} \rightarrow ITF_{A} & P_{10} = kdegTF_{A} * ATF_{A} \\ \xrightarrow{P_{10}} \rightarrow R_{A} & P_{11} = \frac{F_{2A} * ATF_{A}}{K_{DA} * \left[1 + \frac{ATF_{B}}{K_{B}}\right] + ATF_{A}} \\ \xrightarrow{P_{12}} = \frac{F_{1A} * ATF_{A}}{K_{DA} * \left[1 + \frac{ATF_{B}}{K_{B}}\right] + ATF_{A}} \end{array}$$

$$\begin{array}{cccc} -\frac{R_{1}}{k} \rightarrow R_{B} & P_{13} = B_{B}^{R} \\ R_{B} - \frac{R_{4}}{k} \rightarrow & P_{14} = kdegR_{B} * R_{B} \\ R_{B} - \frac{R_{5}}{k} \rightarrow C_{B} & P_{15} = kon_{B} * L_{B} * R_{B} \\ C_{B} - \frac{R_{4}}{k} \rightarrow R_{B} & P_{16} = koff_{B} * C_{B} \\ C_{B} - \frac{R_{2}}{k} \rightarrow & P_{17} = ke_{B} * C_{B} \\ -\frac{R_{12}}{k} \rightarrow ITF_{B} & P_{18} = B_{B}^{HF} \\ ITF_{B} - \frac{R_{5}}{k} \rightarrow ATF_{B} & P_{19} = kdegTF_{B} * ITF_{B} \\ ITF_{B} - \frac{R_{5}}{k} \rightarrow ATF_{B} & P_{20} = \frac{k_{1B} * C_{B} * ITF_{B}}{K_{M1B} + ITF_{B}} \\ ATF_{B} - \frac{R_{1}}{k} \rightarrow ITF_{B} & P_{21} = \frac{k_{2B} * P_{B} * ATF_{B}}{K_{M2B} + ATF_{B}} \\ -\frac{R_{2}}{k} \rightarrow R_{B} & P_{23} = \frac{F_{2B} * ATF_{B}}{K_{DB} * \left[1 + \frac{ATF_{A}}{K_{AA}}\right] + ATF_{B}} \\ -\frac{R_{4}}{k} \rightarrow ITF_{B} & P_{24} = \frac{F_{1B} * ATF_{B}}{K_{DB} * \left[1 + \frac{ATF_{A}}{K_{AA}}\right] + ATF_{B}} \end{array}$$