Regressed Equations Day 9

The regressions trained with all day 9 data.

$$\begin{aligned}\text{Reg1}_{\text{All}} \;=\; &-0.29 * \frac{< M >_{CD45} -4.85}{1.31} \\ &+0.27 * \frac{< M >_{PanCK} -4.48}{1.08} \\ &-0.24 * \frac{\Sigma_{CD45} - 68.47\ dBct}{2.76\ dBct} \\ &+0.21 * \frac{\Sigma_{PanCK} - 70.42\ dBct}{4.27\ dBct} \\ &+0.11 * \frac{< M >_{DAPI} -3.78}{1.20} \\ &+0.03 * \frac{\Sigma_{Bodipy} - 73.60\ dBct}{5.05\ dBct} \\ &-0.02 * \frac{< r_f >_{PanCK} -0.89\ \mu m^{-1}}{0.04\ \mu m^{-1}},\end{aligned} \tag{1}$$

$$\begin{aligned}\text{Reg2}_{\Sigma} \;=\; &0.31 * \frac{\Sigma_{PanCK} - 70.42\ dBct}{4.27\ dBct} \\ &-0.21 * \frac{\Sigma_{CD45} - 68.47\ dBct}{2.76\ dBct},\end{aligned} \tag{2}$$

$$\begin{aligned}\text{Reg3}_{\text{DAPI+CD45+PanCK}} \;=\; &-0.31 * \frac{< M >_{CD45} -4.85}{1.31} \\ &+0.26 * \frac{< M >_{PanCK} -4.48}{1.08} \\ &-0.24 * \frac{\Sigma_{CD45} - 68.47\ dBct}{2.76\ dBct} \\ &+0.21 * \frac{\Sigma_{PanCK} - 70.42\ dBct}{4.27\ dBct} \\ &+0.14 * \frac{< M >_{DAPI} -3.78}{1.20} \\ &+0.04 * \frac{\Sigma_{DAPI} - 74.76\ dBct}{3.09\ dBct} \\ &-0.01 * \frac{< r_f >_{PanCK} -0.89\ \mu m^{-1}}{0.04\ \mu m^{-1}},\end{aligned} \tag{3}$$

$$\begin{aligned}\text{Reg4}_{\text{DAPI+Bodipy+CD45}} \;=\; &-0.25 * \frac{\Sigma_{CD45} - 68.47\ dBct}{2.76\ dBct} \\ &+0.16 * \frac{\Sigma_{Bodipy} - 73.60\ dBct}{5.05\ dBct} \\ &+0.12 * \frac{< M >_{Bodipy} -4.29}{1.00} \\ &+0.05 * \frac{\Sigma_{DAPI} - 74.76\ dBct}{3.09\ dBct} \\ &-0.01 * \frac{< r_f >_{CD45} -0.98\ \mu m^{-1}}{0.03\ \mu m^{-1}},\end{aligned} \tag{4}$$

$$\begin{aligned}\text{Reg5}_{\text{DAPI+CD45}} \;=\; &-0.76 * \frac{< r >_{DAPI} -4.30\ \mu m}{1.30\ \mu m} \\ &+0.75 * \frac{< M >_{DAPI} -3.78}{1.20} \\ &+0.68 * \frac{< r >_{CD45} -4.92\ \mu m}{1.33\ \mu m} \\ &-0.59 * \frac{< M >_{CD45} -4.85}{1.31} \\ &-0.27 * \frac{\Sigma_{CD45} - 68.47\ dBct}{2.76\ dBct} \\ &+0.27 * \frac{\Sigma_{DAPI} - 74.76\ dBct}{3.09\ dBct},\end{aligned} \tag{5}$$

$$\begin{aligned}\text{Reg6}_{\text{DAPI+PanCK}} \;=\; &-1.13 * \frac{< M >_{DAPI} -3.78}{1.20} \\ &+1.04 * \frac{< r >_{DAPI} -4.30\ \mu m}{1.30\ \mu m} \\ &+0.35 * \frac{< r_f >_{DAPI} -0.88\ \mu m^{-1}}{0.05\ \mu m^{-1}} \\ &+0.23 * \frac{\Sigma_{PanCK} - 70.42\ dBct}{4.27\ dBct} \\ &-0.16 * \frac{< r >_{PanCK} -5.06\ \mu m}{1.33\ \mu m} \\ &+0.12 * \frac{< M >_{PanCK} -4.48}{1.08} \\ &+0.08 * \frac{\Sigma_{DAPI} - 74.76\ dBct}{3.09\ dBct},\end{aligned} \tag{6}$$

$$\begin{aligned}\text{Reg7}_{\text{DAPI+Bodipy}} \;=\; &-1.03 * \frac{< M >_{DAPI} -3.78}{1.20} \\ &+0.85 * \frac{< r >_{DAPI} -4.30\ \mu m}{1.30\ \mu m} \\ &+0.34 * \frac{< r_f >_{DAPI} -0.88\ \mu m^{-1}}{0.05\ \mu m^{-1}} \\ &-0.15 * \frac{< r_f >_{Bodipy} -0.86\ \mu m^{-1}}{0.05\ \mu m^{-1}} \\ &+0.14 * \frac{< M >_{Bodipy} -4.29}{1.00} \\ &+0.10 * \frac{\Sigma_{Bodipy} - 73.60\ dBct}{5.05\ dBct},\end{aligned} \tag{7}$$

$$\begin{aligned}\text{Reg8}_{\text{DAPI}} \;=\; &1.41 * \frac{< M >_{DAPI} -3.78}{1.20} \\ &-1.37 * \frac{< r >_{DAPI} -4.30\ \mu m}{1.30\ \mu m} \\ &+0.25 * \frac{\Sigma_{DAPI} - 74.76\ dBct}{3.09\ dBct},\end{aligned} \tag{8}$$

$$\begin{aligned}\mathrm{Reg9}_{\mathrm{Bodipy}} &= 0.33 * \frac{\Sigma_{Bodipy} - 73.60\ dBct}{5.05\ dBct} \\ &- 0.04 * \frac{< r >_{Bodipy} - 5.03\ \mu m}{1.33\ \mu m},\end{aligned} \tag{9}$$

$$\begin{aligned}\mathrm{Reg10}_{\mathrm{CD45}} &= 0.32 * \frac{< M >_{CD45} - 4.85}{1.31} \\ &- 0.29 * \frac{\Sigma_{CD45} - 68.47\ dBct}{2.76\ dBct} \\ &- 0.05 * \frac{< r_f >_{CD45} - 0.98\ \mu m^{-1}}{0.03\ \mu m^{-1}},\end{aligned} \tag{10}$$

$$\begin{aligned}\mathrm{Reg11}_{\mathrm{PanCK}} &= 0.32 * \frac{\Sigma_{PanCK} - 70.42\ dBct}{4.27\ dBct} \\ &+ 0.04 * \frac{< r_f >_{PanCK} - 0.89\ \mu m^{-1}}{0.04\ \mu m^{-1}},\end{aligned} \tag{11}$$