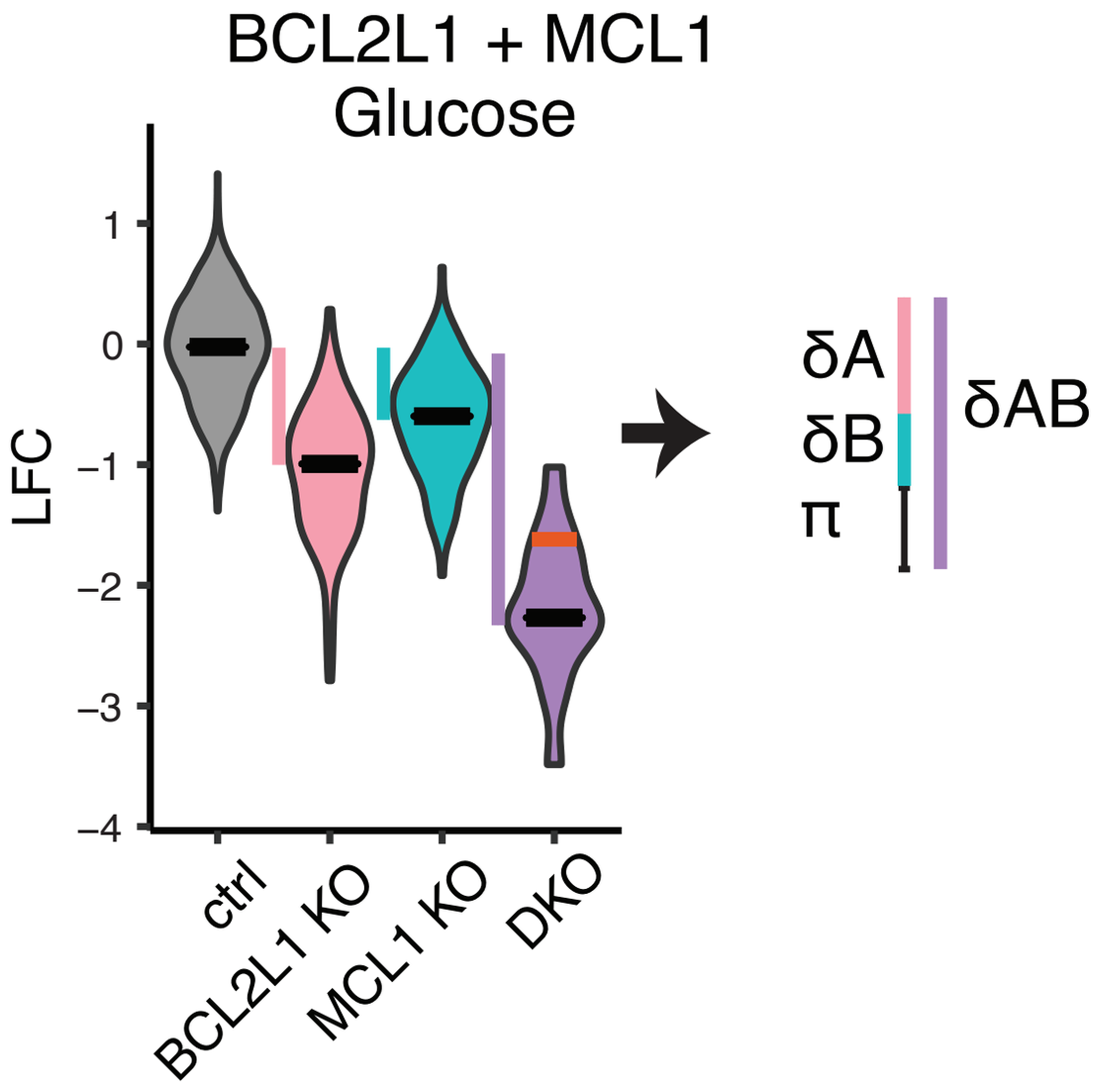

$$(\hat{\alpha}, \hat{\phi}_{ij}, \hat{\psi}_{kl}) = \arg\min \sum_{ijkl} ||C_{ijkl} - \alpha - \phi_{ij} - \psi_{kl}||_1$$

$$\text{s.t.} \sum_{i \in \text{neg}} \phi_{ij} = 0 \text{ and } \sum_{k \in \text{neg}} \psi_{kl} = 0$$

$$\pi_{ik} = \begin{cases} \text{median}_{jl}(C_{ijkl} - \hat{\alpha} - \hat{\phi}_{ij} - \hat{\psi}_{kl}), & i \neq k \\ 0, & \text{if } i = k \end{cases}$$