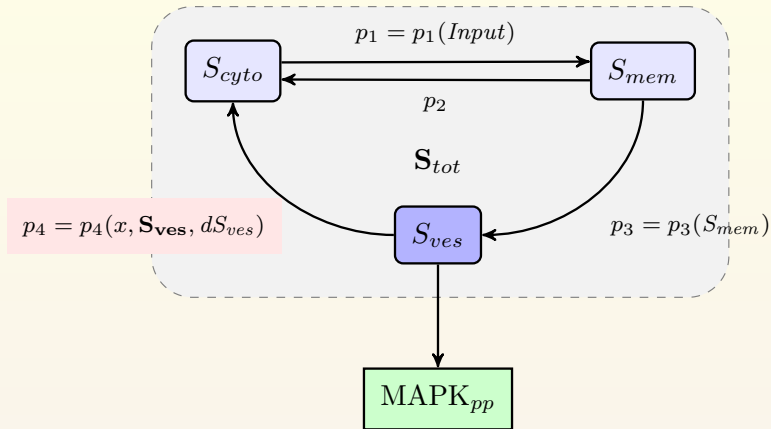
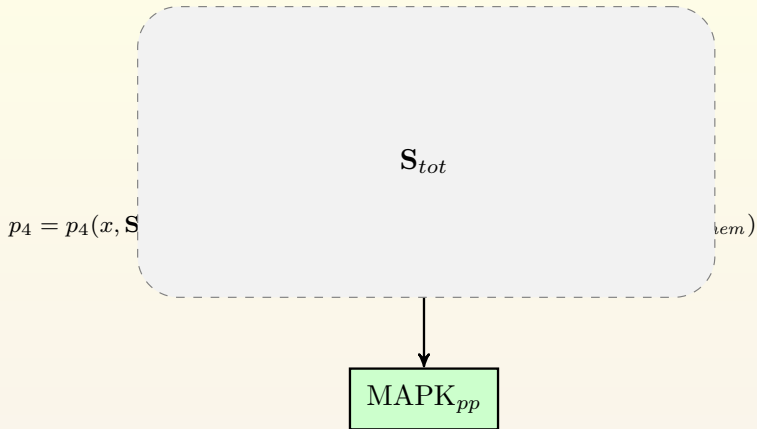


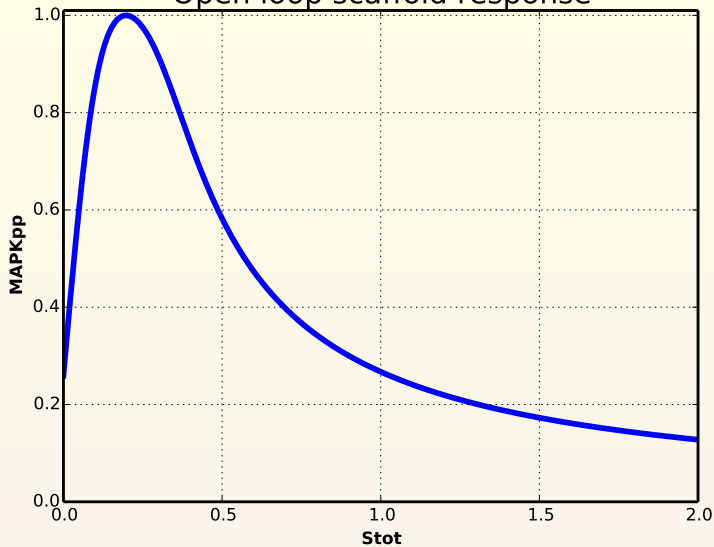
# Model Schematic



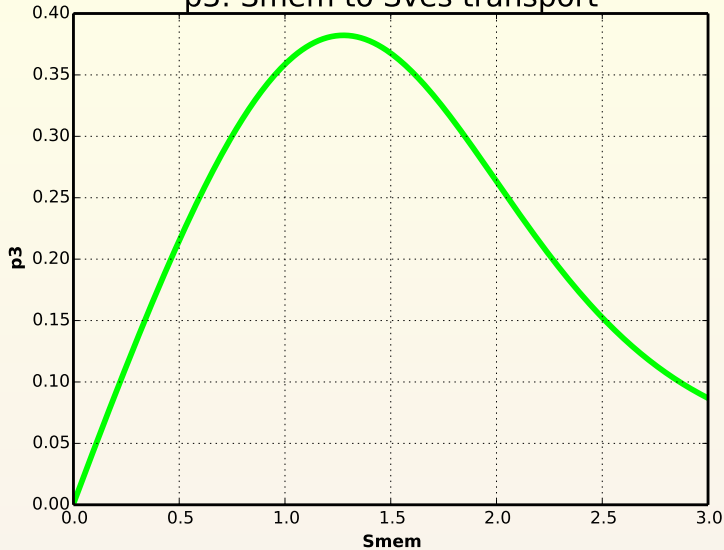
# Model Schematic



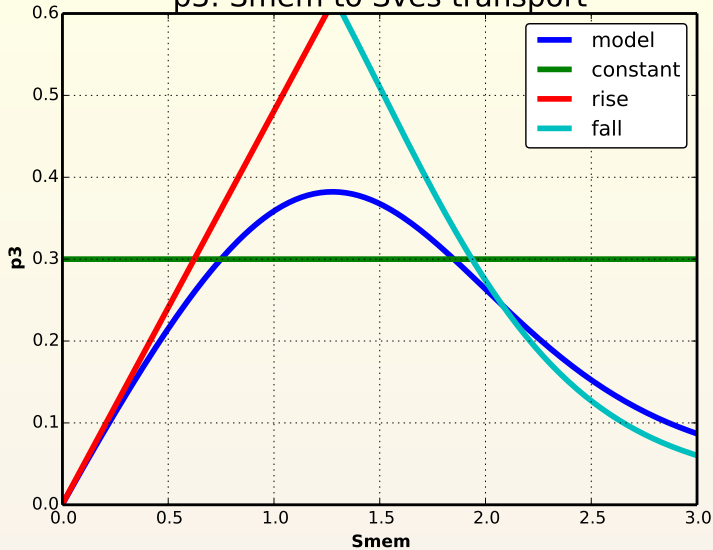
Open loop scaffold response



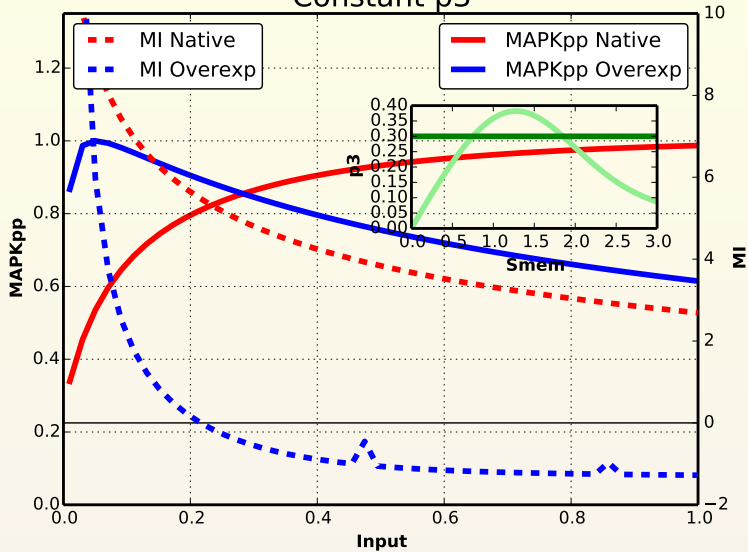
p3: Smem to Sves transport



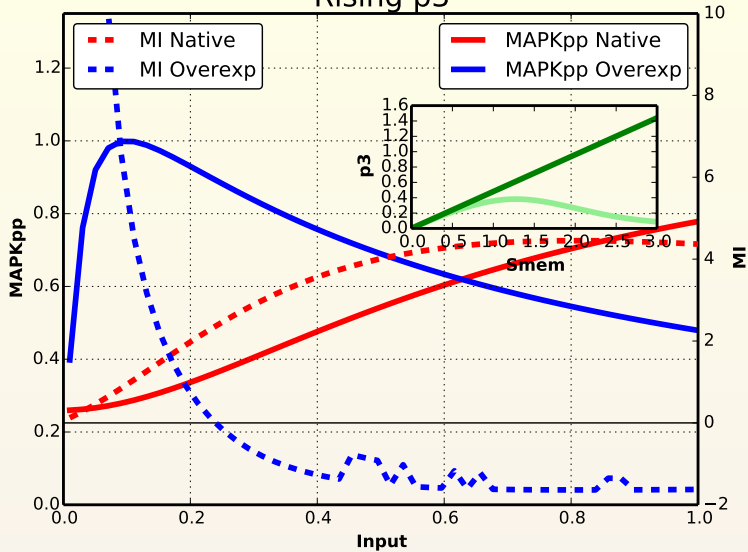
p3: Smem to Sves transport



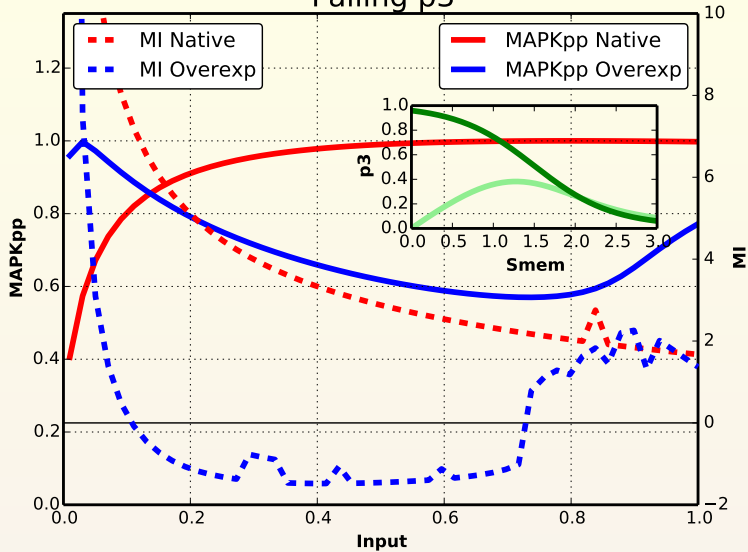
# Constant p3



# Rising p3

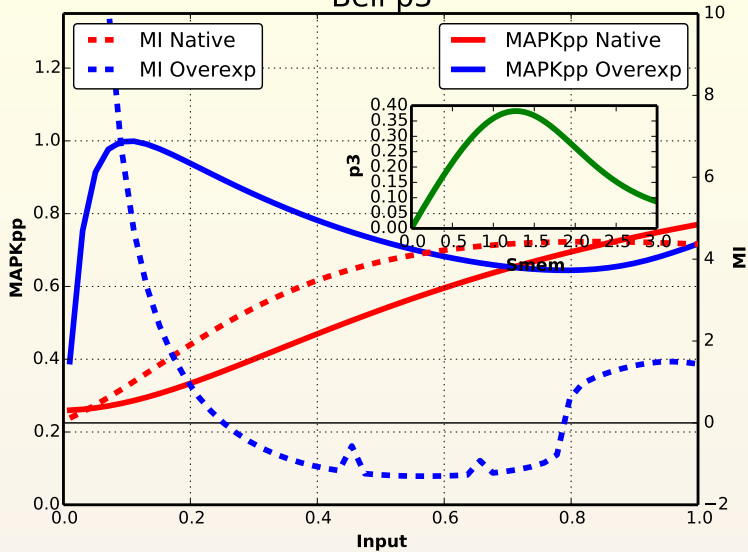


## Falling p3



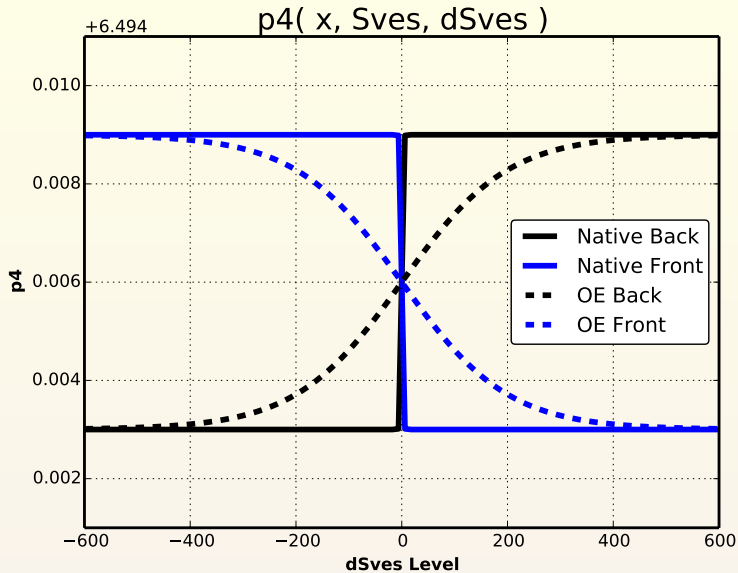


# Bell p3

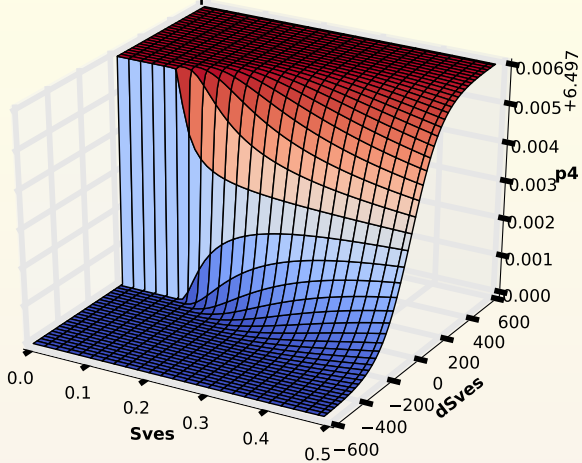


# p4 as a function of Sves and dSves

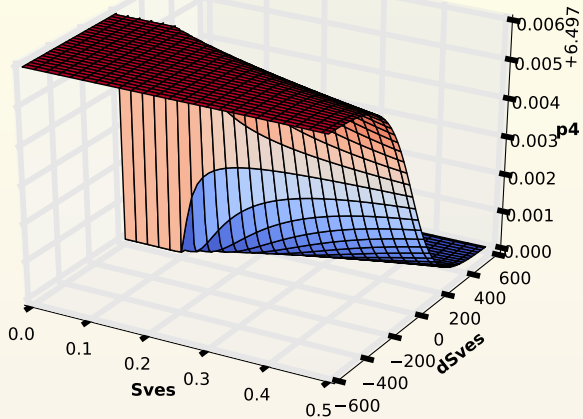
- Previously I've demonstrated why p4 had to be a function of dSves
- dSves serves as the polarity compass btw front and back of the cell
- Now I'm demonstrating why p4 needs to be a function of Sves as well
- Sves serves as sigmoidal strength factor
  - ▶ Low Sves: short transition range
  - ▶ High Sves: long transition range



p4 Back



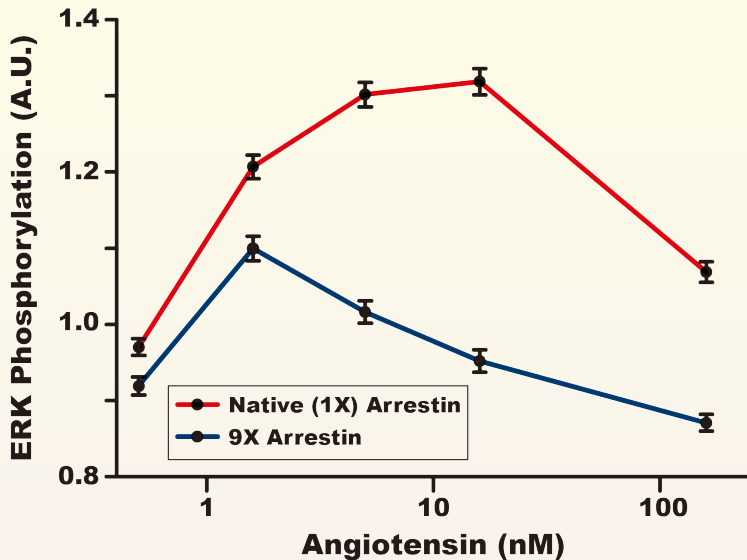
p4 Front



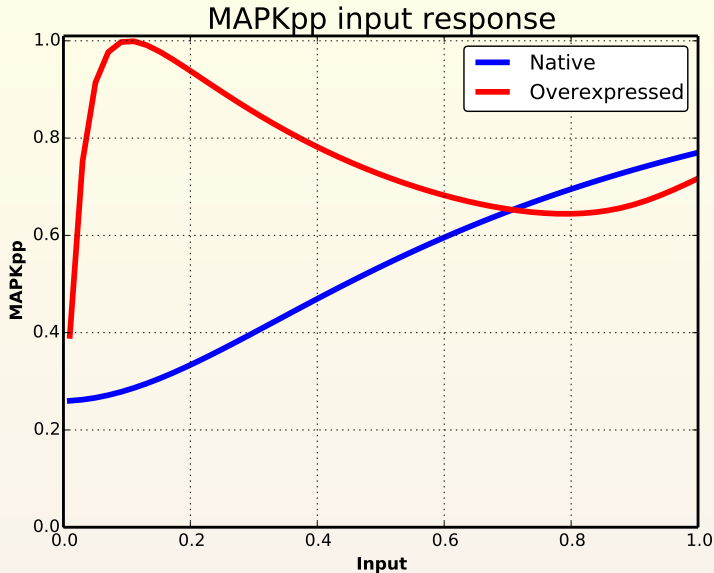
# Comparison with experiments

# MAPKpp Dose Response

**D**



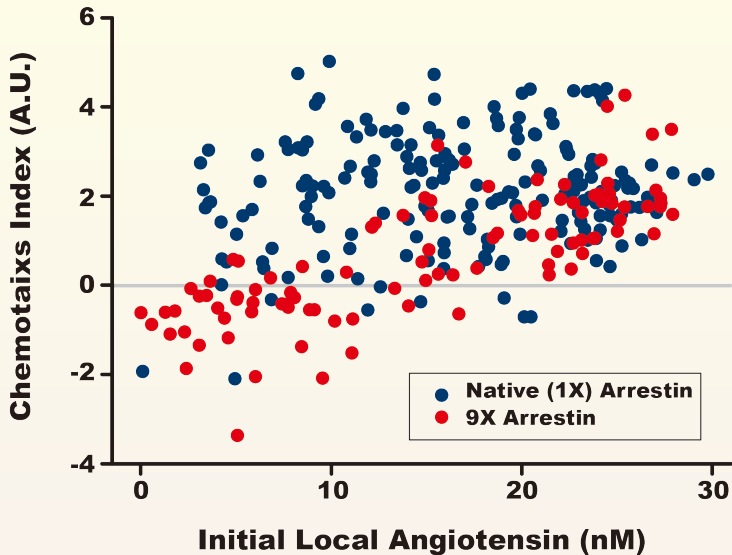
# MAPKpp Dose Response



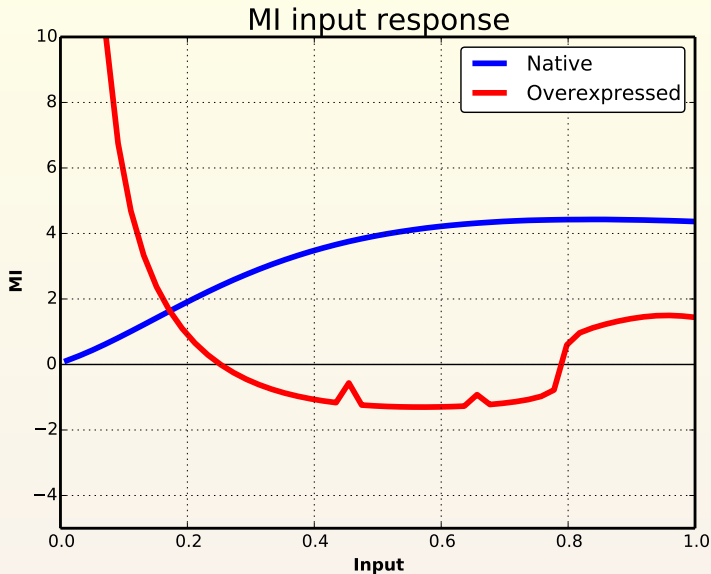


# MI Dose Response

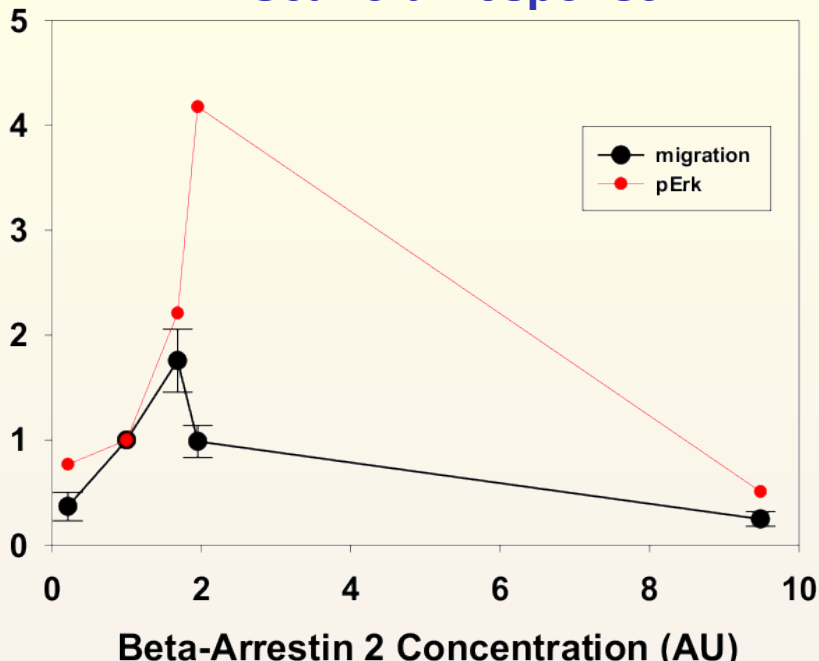
**B**



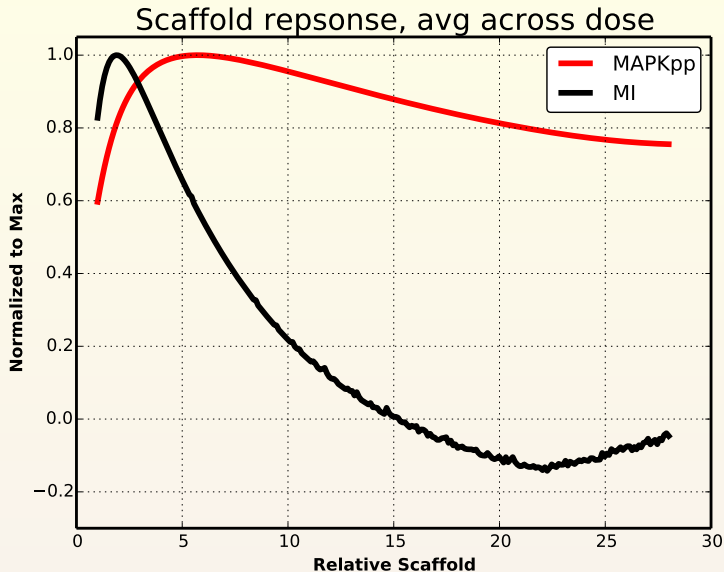
# MI Dose Response



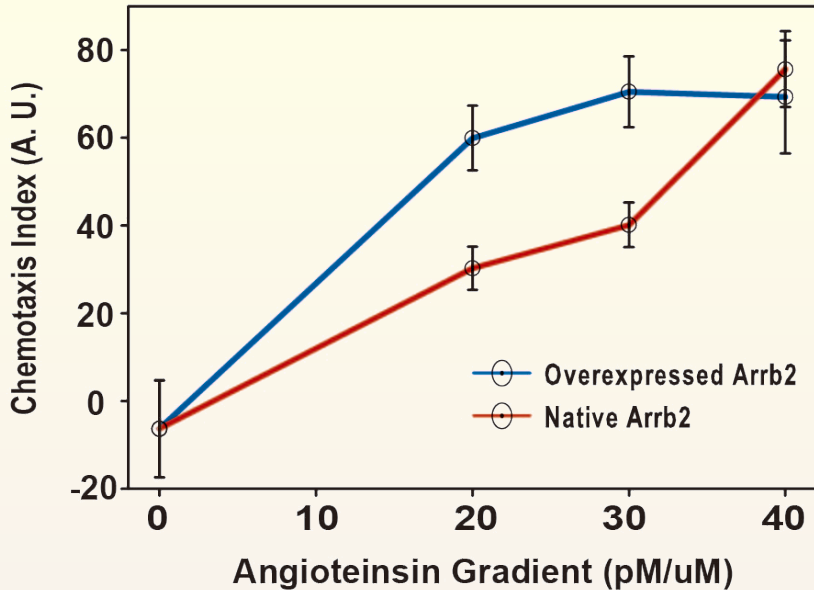
# Scaffold Response



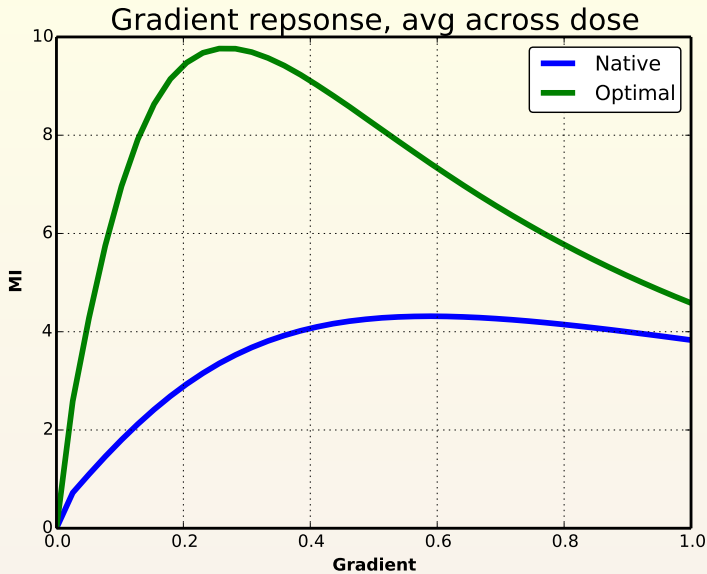
# Scaffold Response



# Gradient Response

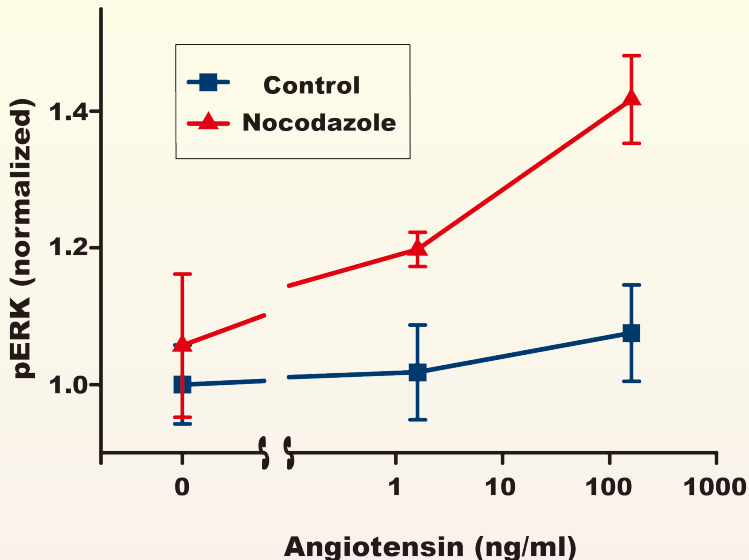


# Gradient Response

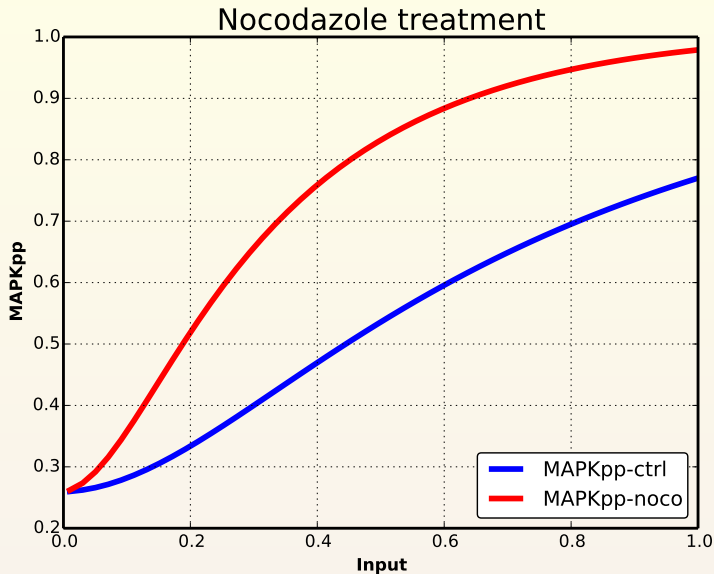


# Nocodazole treatment

**E**



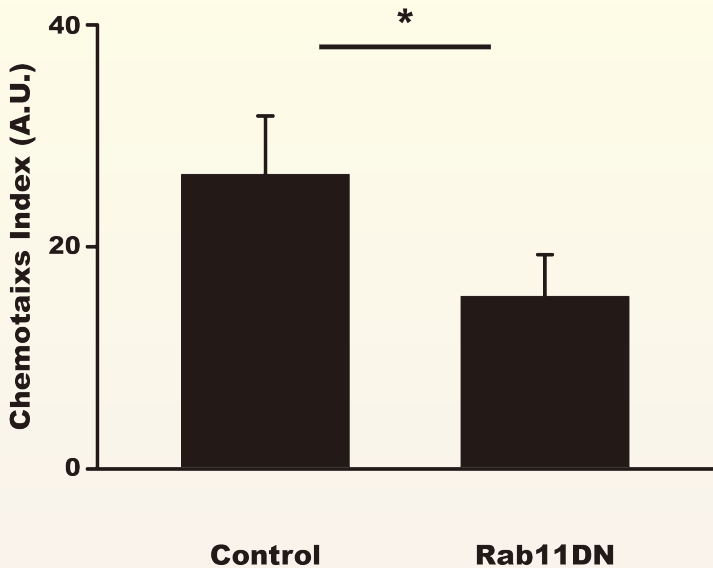
$$S_{ves} \rightarrow S_{cyto}, 20\%p_4$$





## Rab11-DN

**F**



# Rab11-DN

