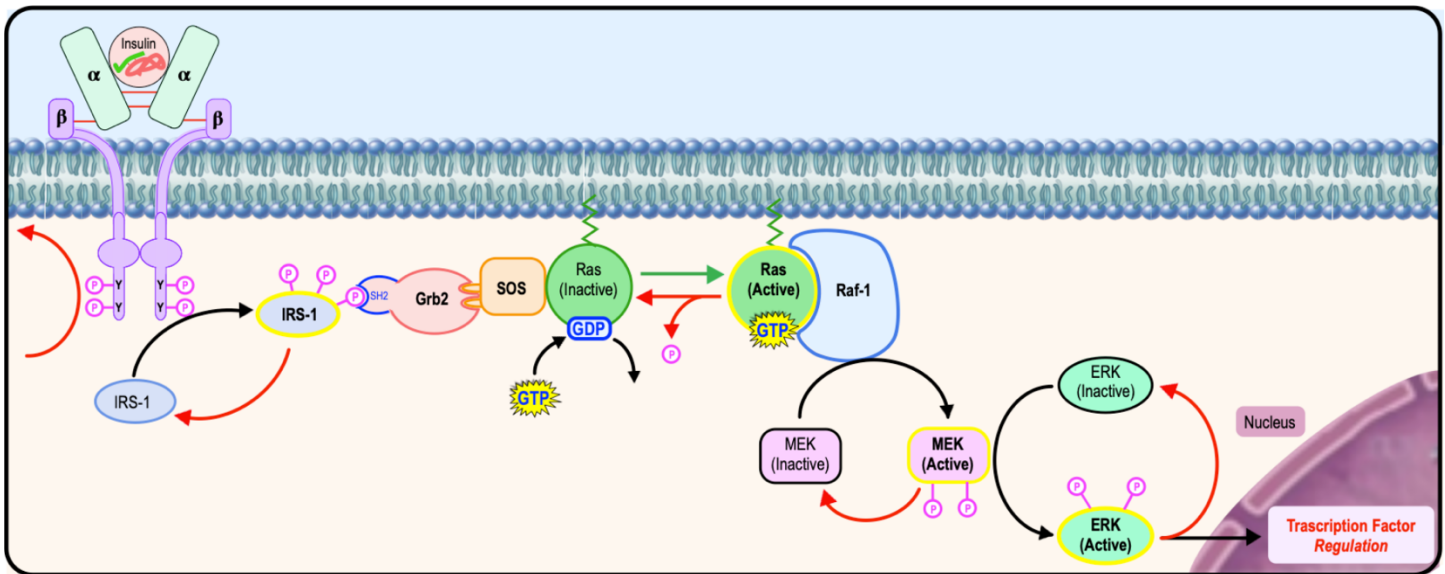


CONCEPT: RECAP OF INSULIN SIGNALING AS A GROWTH FACTOR



PRACTICE: How is Ras activity turned off?

- a) It is turned off by phosphorylation.
- b) It is turned off by hydrolysis of its bound GTP to GDP.
- c) It is turned off by hydrolysis of its bound GDP to GTP.
- d) It is turned off by hydrolysis of its bound GTP to GMP.

PRACTICE: In a tumor cell line, Raf-1 is mutated such that it is constitutively activated by Ras even in the absence of insulin signaling. How can you inhibit the growth of this tumor cell line?

- a) Blocking insulin receptor autophosphorylation.
- b) Inhibiting the kinase activity of ERK.
- c) Preventing the production of cAMP.
- d) Blocking the recruitment of PI3K to the plasma membrane by IRS-1.