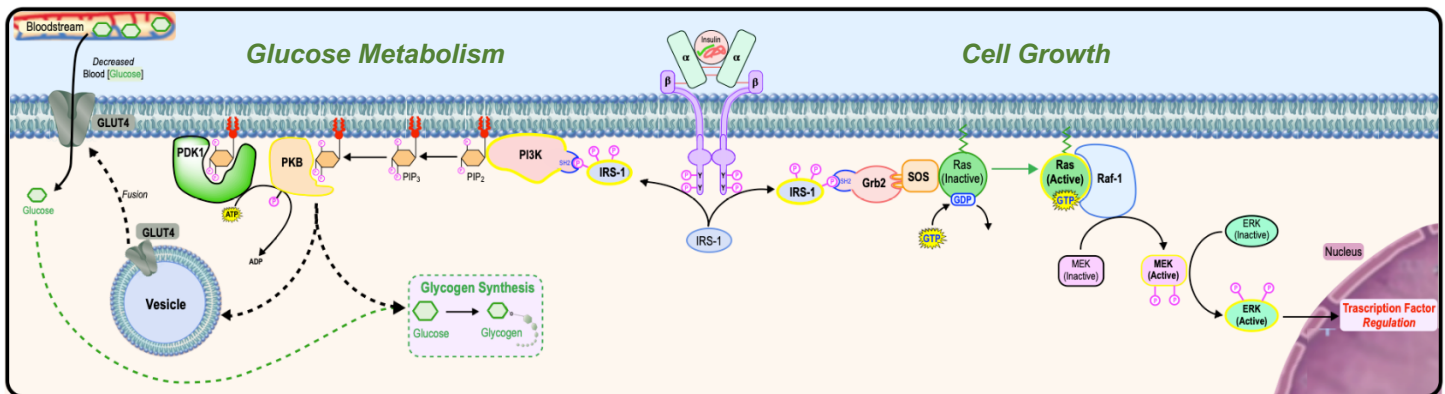


CONCEPT: RECAP OF INSULIN SIGNALING



PRACTICE: Match the following terms with their correct descriptions:

- | | |
|--|---|
| a) Insulin _____. | 1. Ligand. |
| b) Receptor tyrosine kinase _____. | 2. Activates Ras. |
| c) Grb2 _____. | 3. Adaptor protein in insulin signaling. |
| d) Sos _____. | 4. Fully activates Akt/PKB. |
| e) Ras _____. | 5. Binds to IRS-1 and forms IP ₃ . |
| f) IRS _____. | 6. Insulin Receptor. |
| g) Phosphoinositide 3 Kinase _____. | 7. Promotes expression of GLUT4 to membrane. |
| h) PIP ₃ -Dependent Kinase 1 _____. | 8. Monomeric G-protein. |
| i) Akt/PKB _____. | 9. Binds to IRS-1 and Sos. |

PRACTICE: After a thorough investigation, one would likely find that many hormones like epinephrine, insulin, & glucagon:

- Can only regulate key cytosolic enzymes in metabolic pathways.
- Can only regulate the activity of nuclear transcription factors.
- Can regulate key cytosolic enzymes in metabolic pathways and regulate the activity of nuclear transcription factors.