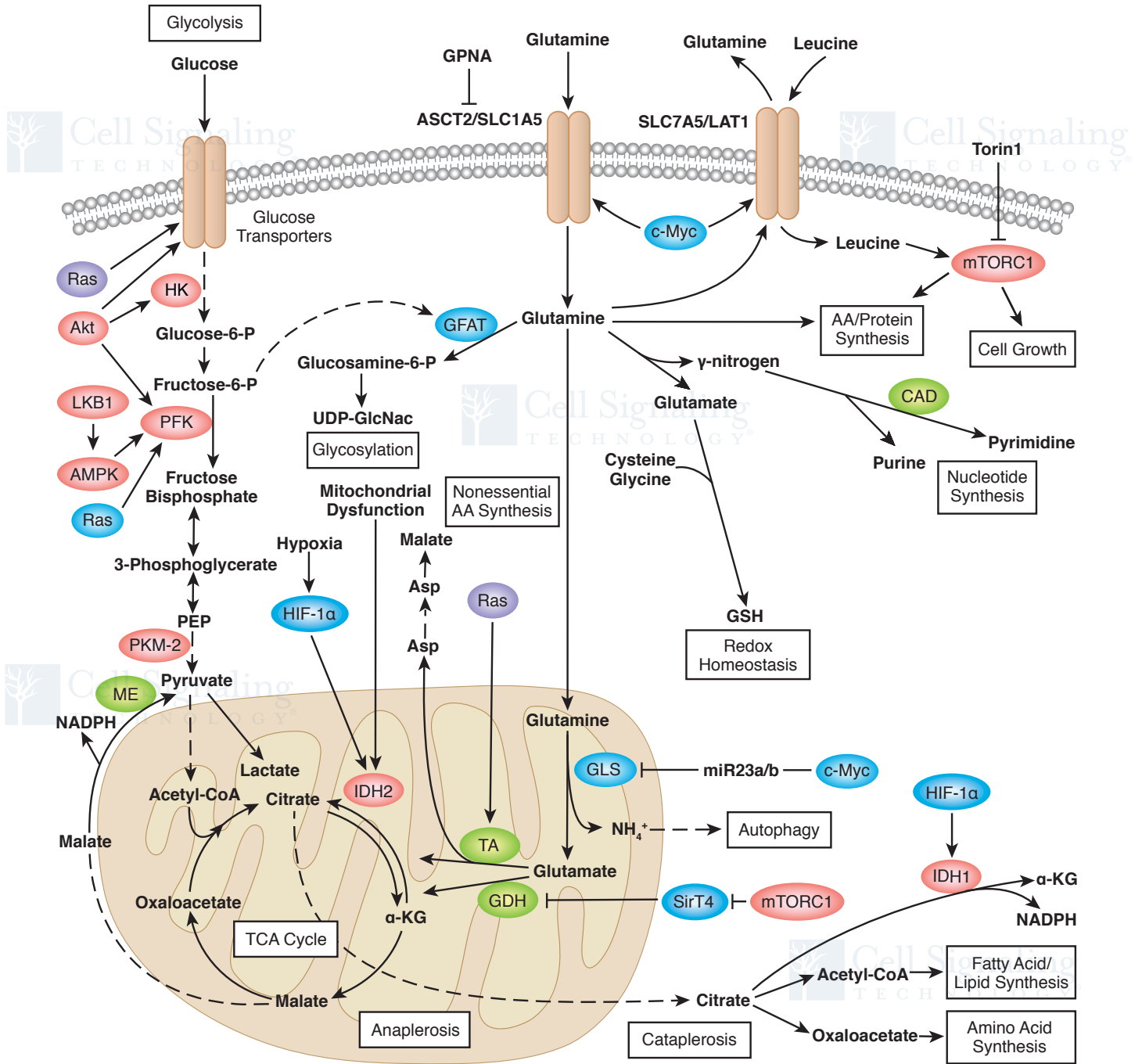


Glutamine Metabolism



Pathway Diagram Key

- | | | | |
|-----------------------------------|---------------------------------------|--|---|
| → Direct Stimulatory Modification | →→ Multistep Stimulatory Modification | - - → Tentative Stimulatory Modification | ⊣ Transcriptional Inhibitory Modification |
| — Direct Inhibitory Modification | →- Multistep Inhibitory Modification | - - Tentative Inhibitory Modification | |
-
- | | | | | | | |
|-------------|----------------------|----------|---------------|---------|-----------|-------------|
| Kinase | Transcription Factor | Receptor | pro-apoptotic | GAP/GEF | G-protein | Deacetylase |
| Phosphatase | Caspase | Enzyme | pro-survival | GTPase | Acetylase | |