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| **Glycosomal elementary modes** | |
| 1. | Aerobic glycolysis  Glc → 2 3PGA  (HXK, PGI, PFK, ALD, TPI, 2 GAPDH, 2 PGK, 2 GDH, 2 GPO) |
| 2. | Anaerobic glycolysis  Glc → 3PGA + Gly  (HXK, PGI, PFK, ALD, GAPDH, PGK, GDH, GK) |
| 3. | Glycerol oxidation  Gly → 3PGA  (GK, 2 GPO, GDH, TPI, GAPDH, PGK) |
| 4. | Glycosomal PPP  Glc → Rib  (HXK, G6PDH, PGL, 6PGDH, PPI, 2 NADPHu, RK) |
| 5. | Futile cycle  No external metabolites involved  (2 PFK, 2FBPase, RK, AK, APRT, ANase, -PRPPsyn, ADK) |
| 6. | Gluconeogenesis from glycerol  4 Gly → 2 Glc  (4 -GK, 4 TAO, 2 TPI, 2 -ALD, 2 FBPase, 2 -PGI, 2 -HK, RK, AK, APRT, ANase, -PRPPsyn, ADK) |
| 7. | Riboneogenesis from glycerol  4 Gly → 2 Rib  (4 -GK, 4 TAO, 2 TPI, 2 -ALD, 2 FBPase, 2 -PGI, 2 G6PDH, 2 PGL, 2 6PGDH, 2 PPI, 3 RK, AK, APRT, ANase, -PRPPsyn, ADK, 4 NADPHu) |
| 8. | Gluconeogenesis from glycerol and 3PGA  2 3PGA + 2 Gly 🡪 2 Glc  (2 -PGK, 2 -GAPDH, 2 -GK, 2 -GDH, 2 -ALD, 2 FBPase, 2 -PGI, 2 -HK, RK, AK, APRT, ANase, -PRPPsyn, ADK) |
| 9. | Riboneogenesis from glycerol and 3PGA  2 3PGA + 2 Gly 🡪 2 Rib  (2 -PGK, 2 -GAPDH, 2 -GK, 2 -GDH, 2 -ALD, 2 FBPase, 2 -PGI, 2 G6PDH, 2 PGL, 2 6PGDH, 2 PPI, 3 RK, AK, APRT, ANase, -PRPPsyn, ADK, 4 NADPHu) |