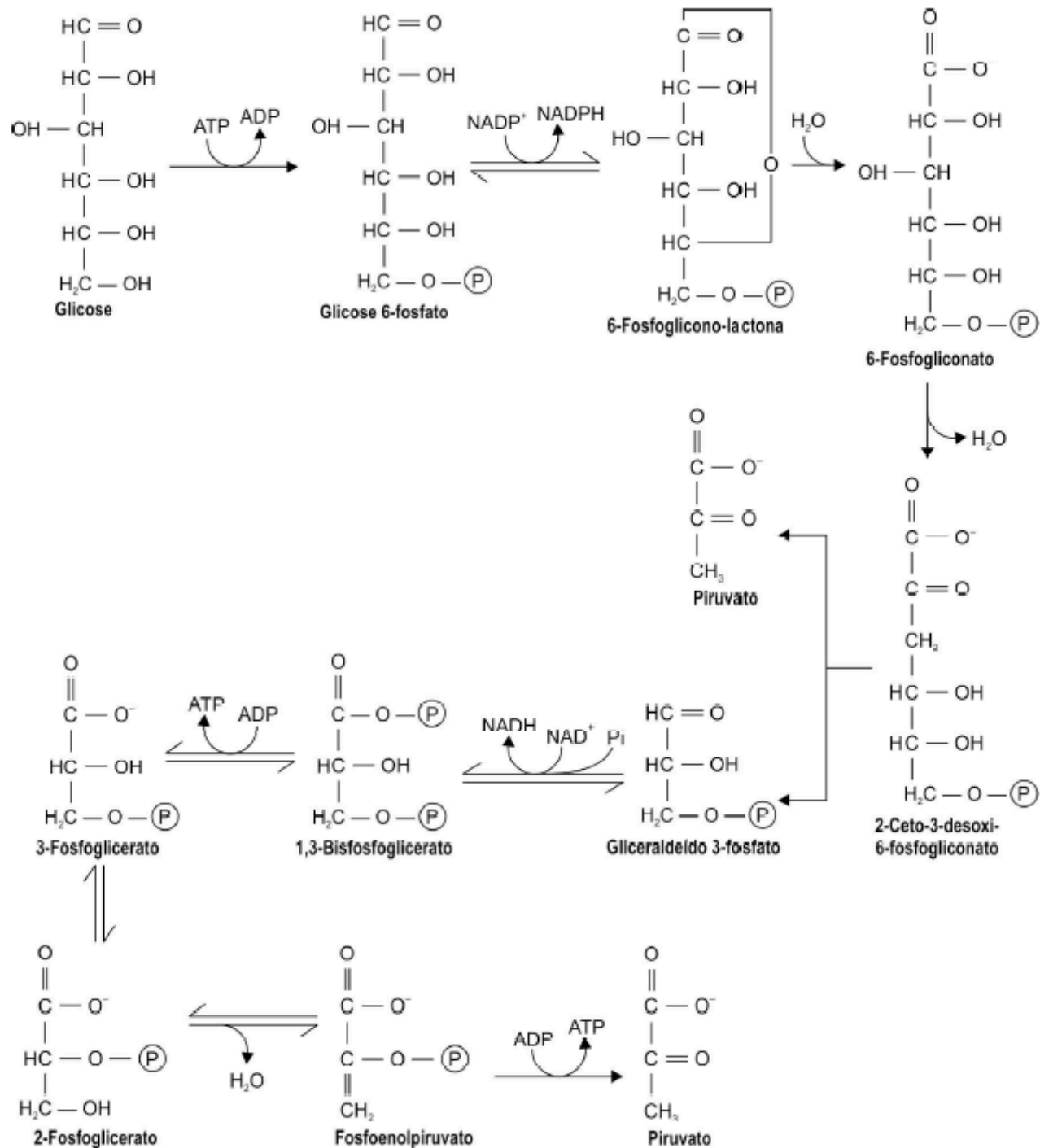


A via de Entner–Doudoroff pode se apresentar de modo cíclico

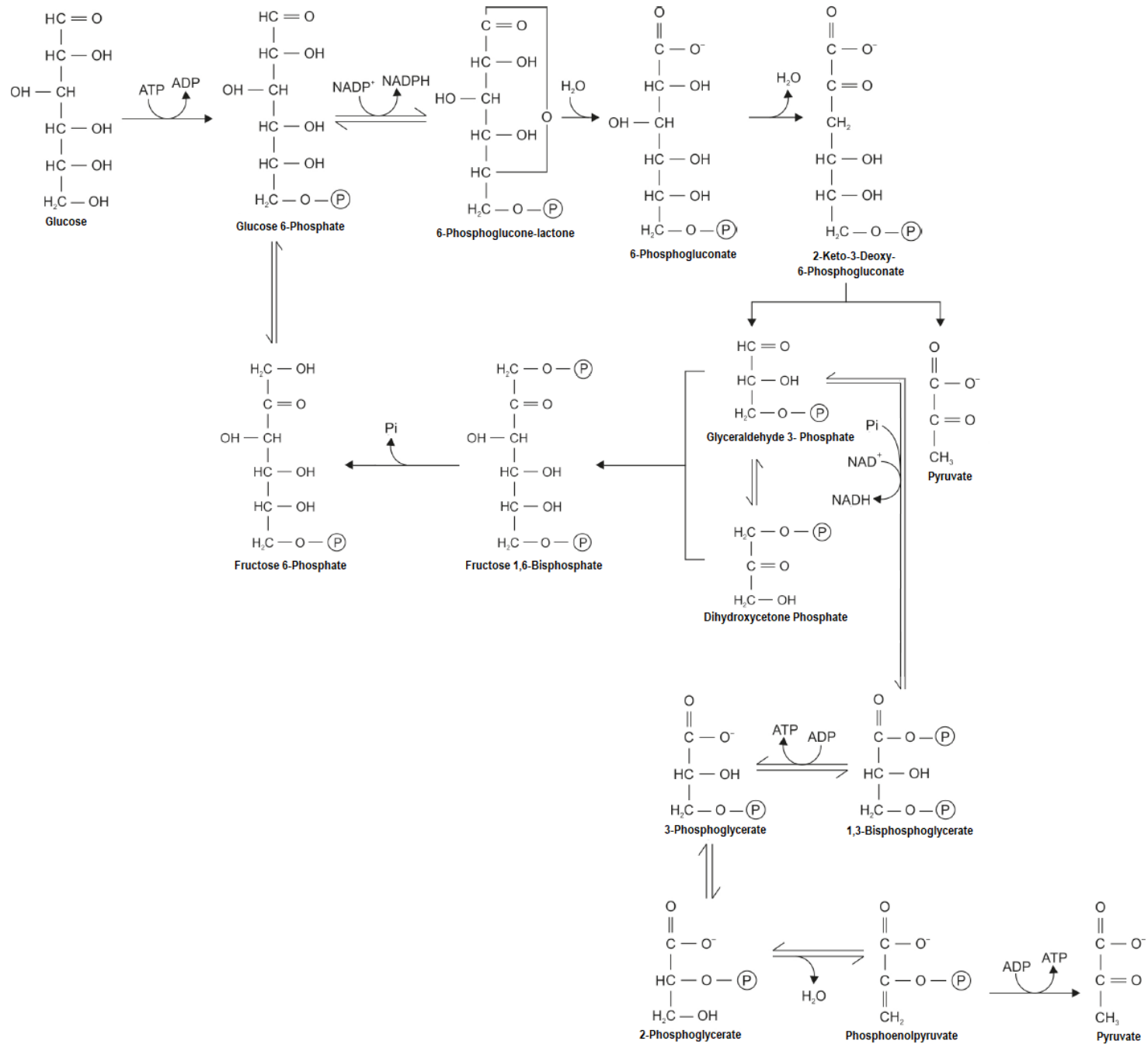
COMPARE:

*A via de Entner–Doudoroff
apresentada na aula anterior se
encontra a seguir*

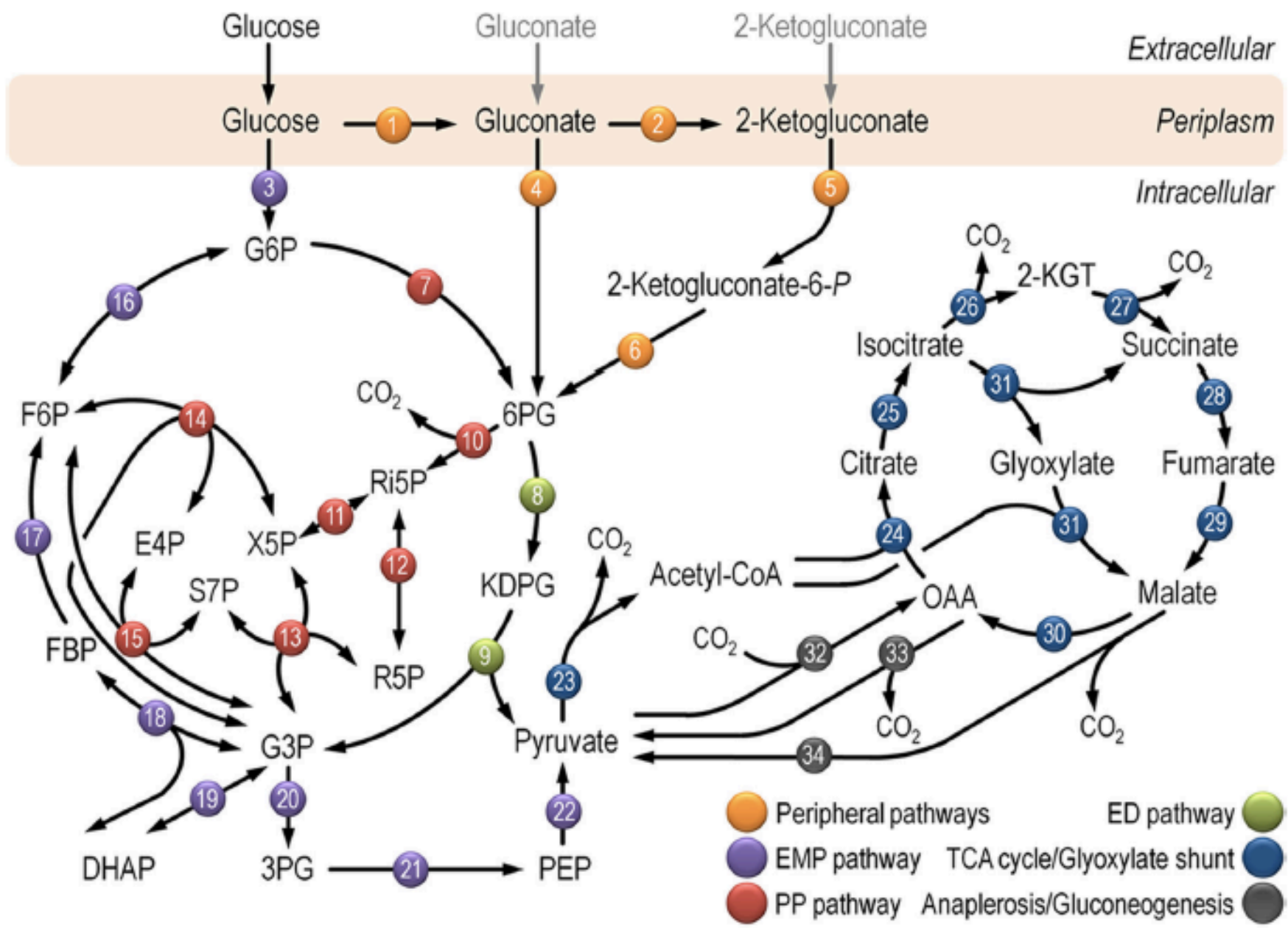


*A via de Entner–Doudoroff pode
ocorrer de modo cíclico*

COMPARE



*A GLICOSE também pode ser
catabolizada de outras formas,
como em Pseudomonas putida,
mostrada a seguir:*



Enzimas envolvidas

Functional block	Code	Enzyme(s)	Name(s) and PP number(s)
Peripheral pathways	1	Glucose dehydrogenase	God (PP1444)
	2	Gluconate 2-dehydrogenase	PP3382-PP3384 PP3623, PP4232
	4	Gluconate kinase	GnuK (PP3416)
	5	2-Ketogluconate kinase	KguK (PP3378)
	6	2-Ketogluconate-6-P reductase	KguD (PP3376)
Pentose phosphate pathway	7	Glucose-6-P 1-dehydrogenase	Zwf-1 (PP1022), Zwf-2 (PP4042), Zwf-3 (PP5351)
		6-Phosphogluconolactonase	Pgl (PP1023)
	10	6-Phosphogluconate dehydrogenase	Gnd (PP4043)
	11	Ribulose-5-P 3-epimerase	Rpe (PP0415)
	12	Ribose-5-P isomerase	RpiA (PP5150)
	13	Transketolase	TktA (PP4965)
	14	Transaldolase B	Tal (PP2168)
Entner-Doudoroff pathway	8	6-Phosphogluconate dehydratase	Edd (PP1010)
	9	2-Keto-3-deoxy-6-phosphogluconate aldolase	Eda (PP1024)
Anaplerosis / Gluconeogenesis	32	Pyruvate carboxylase	OadA (PP5346), AccC-2 (PP5347)
	33	Phosphoenolpyruvate carboxylase	Ppc (PP1505)
	34	Malic enzyme	MaeB (PP5085)

Embden-Meyerhof-Parnas pathway	3	Glucokinase	Glk (PP1011)
	16	Glucose-6-P isomerase	Pgi-1 (PP1808), Pgi-2 (PP4701)
	17	Fructose-1,6-bisphosphatase	Fbp (PP5040)
	18	Fructose-1,6-P ₂ aldolase	Fda (PP4960), PP1791, PP2871, PP3224
	19	Triose phosphate isomerase	TpiA (PP4715)
	20	Glyceraldehyde-3-P dehydrogenase	Gap-1 (PP1009), Gap-2 (PP2149), PP0665, PP3443
		Phosphoglycerate kinase	Pgk (PP4963)
	21	Phosphoglycerate mutase	Pgm (PP5056), PP2243, PP3923, PP4450
		Phosphopyruvate hydratase	Eno (PP1612)
	22	Pyruvate kinase	PykA (PP1362), PykF (PP4301)
Tricarboxylic acid cycle / Glyoxylate shunt	23	Pyruvate dehydrogenase	AcoA (PP0555), AceF (PP0338), AceE (PP0339), Lpd3 (PP5366), LdpG (PP4187), LpdV (PP4404)
	24	Citrate synthase	GltA (PP4194)
	25	Aconitase hydratase	AcnA (PP2112), AcnB (PP2339), PP2336
	26	Isocitrate dehydrogenase	Icd (PP4011), PP4012
	27	2-Ketoglutarate dehydrogenase	LpdG (PP4187), KgdB (PP4188), SucA (PP4189), PP2652, PP3662
		Succinyl-coenzyme A synthetase	SucDC (PP4185-PP4186)
	28	Succinate dehydrogenase	SdhA (PP4191), SdhB (PP4190), SdhC (PP4193), SdhD (PP4192)
	29	Fumarate hydratase	FumC-1 (PP0944), FumC-2 (PP1755), PP0897
	30	Malate dehydrogenase / Malate:quinone oxidoreductase	Mdh (PP0654), PP3591 Mqo-1 (PP0751), Mqo-2 (PP1251), Mqo-3 (PP2925)
	31	Isocitrate lyase	AceA (PP4116)
		Malate synthase	GlcB (PP0356)