

Table 4 Primary assimilation processes in the methylotrophic network.

compound/precursor biosynthesis	number of carbon in precursor	number of EFMs	Max. molar-Yield	Max. carbon-Yield	Minimal EFM length	EMCP utilisation
5, 10-methylenetetrahydrofolate (Me-THF)	1	2018	1.00	1.00	20	93%
acetyl-CoA	2	2440	0.45	0.91	35	95%
glycine	2	2054	0.42	0.84	62	100%
L-serine	3	2162	0.29	0.88	62	100%
D-glyceraldehyde-3-phosphate (GA3P)	3	2592	0.27	0.81	54	100%
phosphateenolpyruvate (PEP)	3	3390	0.32	0.97	53	100%
pyruvate (PYR)	3	3065	0.33	1.00	50	100%
oxaloacetate (OAA)	4	5366	0.32	1.29	51	100%
(R)-3-hydroxybutanoyl-CoA (3HBCOA)	4	2789	0.21	0.83	37	92%
D-erythrose-4-phosphate (E4P)	4	6576	0.20	0.81	63	100%
α -ketoglutarate	5	3806	0.20	1.02	54	100%
D-ribose-5-phosphate	5	4663	0.16	0.81	61	100%
D-glucose-6-phosphate	6	2592	0.14	0.68	58	100%

Number and properties of primary assimilatory EFMs detected in the methylotrophic network. The EFMs correspond to the processes allowing the conversion of methanol into 13 key carbon precursors