



1 Exergonic decarboxylation (methylmalonyl-CoA to propionyl-CoA)

2 Endergonic formation of the thiol ester (succinate to succinyl-CoA) gears to the exergonic cleavage of the thiol ester (propionyl-CoA to propionate or acetyl-CoA to acetate)

● Differential expression (in fold change) of *A. muciniphila* in monoculture compared to *A.muc-A.cac* co-culture

* Vitamin B12-dependent enzyme