

Supplementary material:

Table 1: Compound identification in *E. coli* metabolome analysis

Structural formula	PubChemID	Predicted retention time	Database
<chem>CC(O)(C(=O)O)CCO)n1cnc2c(N)ncnc12</chem>	5745135	1.109	PubChem
<chem>CC(=O)Nc1nc(=O)n2cnc(CC(O)CO)c2[nH]1</chem>	5273998	1.087	PubChem
<chem>CC1NC(C(O)C1O)c2[nH]nc3c(=O)[nH]c(=O)[nH]c23</chem>	9881807	1.187	PubChem
<chem>Nc1ncnc2n(cnc12)C3OC(CO)C(O)C3O</chem>	191	1.229	PubChem, ChEBI, MetaCyc, EcoCyc
<chem>CC1OC(C(O)C1O)n2cnc3c(=O)nc(N)[nH]c23</chem>	101255	1.241	PubChem
<chem>CC(=O)OCCCO)n1cnc2c(=O)nc(N)[nH]c12</chem>	6320052	0.807	PubChem
<chem>CC(=O)OCCCO)n1cnc2[nH]c(N)nc(=O)c12</chem>	11346170	0.807	PubChem
<chem>CC(=O)OCCCO)n1cnc2c(=O)nc(N)[nH]c12</chem>	3011667	0.807	PubChem
<chem>CC(=O)Nc1nc(=O)c2n(COCCO)cnc2[nH]1</chem>	11471131	0.79	PubChem
<chem>CC(=O)Nc1nc(=O)c2ncn(COCCO)c2[nH]1</chem>	3109164	0.79	PubChem
<chem>CC(=NNC(=O)C(=O)N)CCn1[nH]c(=O)ccc1=O</chem>	365874	0.758	PubChem
<chem>CC(O)C(O)C(O)c1cnc2[nH]c(N)nc(=O)c2n1</chem>	5007917	0.747	PubChem
<chem>CC(=C1C(=O)NC(=O)N(CC=C)C1=O)NNC(=O)N</chem>	6807374	0.689	PubChem
<chem>NC1=C2N=CN(C3OC(CO)C(O)C3=O)C2N=CN1</chem>	443235	0.673	ChEBI, MetaCyc
<chem>NC(COC1OC(CO)C(O)C(O)C1O)C(=O)O</chem>	132873	0.662	ChEBI
<chem>NC(C(O)CC(=O)C(=O)O)C(O)C(O)C(O)CO</chem>	349961	0.654	ChEBI
<chem>NC(C(O)CC(=O)C(=O)O)C(O)C(O)C(O)CO</chem>	5460034	0.654	ChEBI
<chem>CC1NC(C(O)C1O)C2NN=C3C2=NC(=O)NC3=O</chem>	9881806	0.654	PubChem
<chem>CC1OC(C(O)C1O)n2cnc3c(=O)nc(N)nc23</chem>	11300122	0.654	PubChem

This table shows the results for candidate compounds obtained by mass-based database search. These compounds are sorted by the difference between the measured retention time (1.1338) and the predicted retention time. The fourth compound colored gray is the only one registered in the *E. coli* compound database EcoCyc and was successfully identified as the target compound.