

590 **Supporting information**

591 **Figure S1. An example of using WormPaths to search for a specific gene**

592 A search for the gene *metr-1* will lead to the gene overview, followed by the specific
593 pathway maps that *metr-1* is involved in.

594

595 **Figure S2. Template used for drawing WormPaths maps**

596 GPR, gene-protein reaction association

597

598 **Figure S3. Formatting annotations and other design information for WormPaths**
599 **maps**

600 GPR, gene-protein reaction association

601

602 **Figure S4. Tissue-specific expression of *pck-1* and *pck-2***

603

604 **Table S1. Pathways at levels 1 through 4**

605

606 **Table S2. All maps and the corresponding level to which each map was drawn**

607

608 **Table S3. Gene sets per each pathway by level by gene name**

609

610 **Table S4. Gene sets per each pathway by level by WormBase ID**

611

612 **Table S5. All pathway associations listed by gene**

WormFlux

WormPaths

Network

Biomass

WormPaths

FBA

Select from list

None selected

Bring pathway

Or search wormflux and use the WormPaths links in overview tables.

(?)

metr-1

for a gene

Gene Overview

Name : **metr-1**

Sequence ID : R03D7.1

Status (?) : Curated

KO (?) : K00548

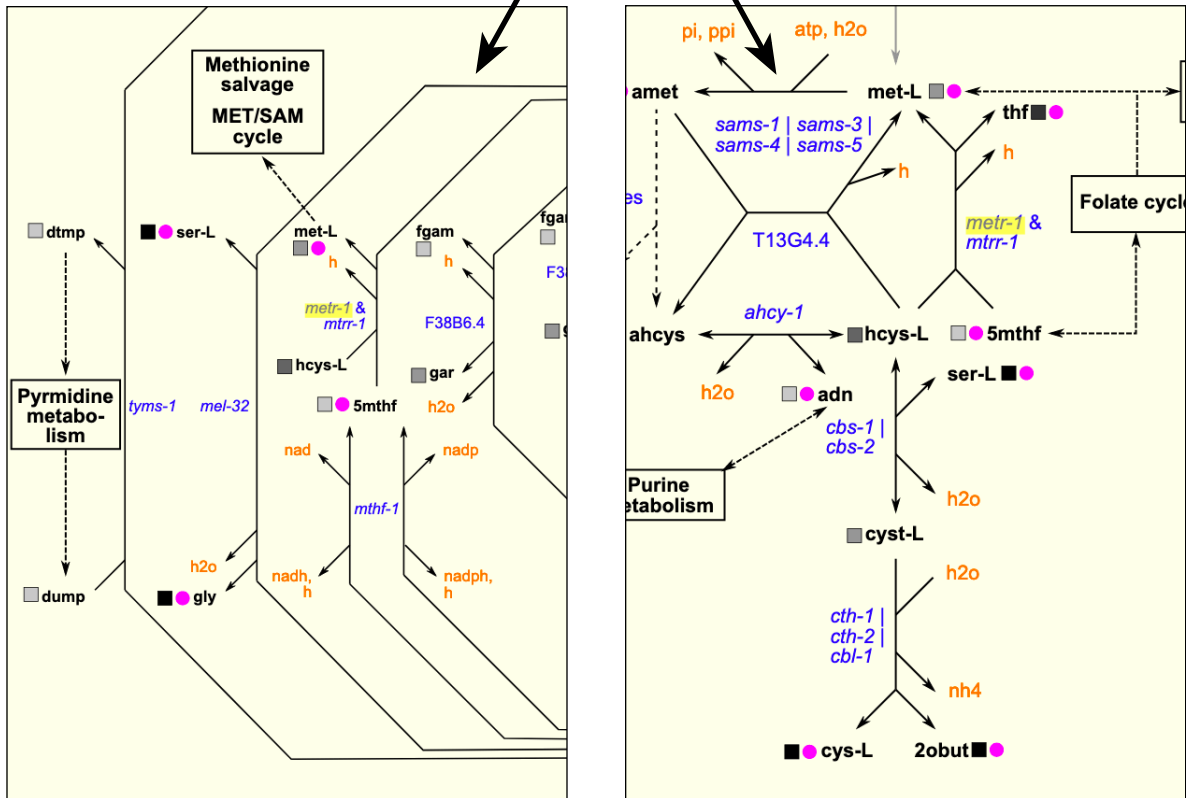
Enzymes in the model (?) : 2.1.1.13

Other enzymes (?) : None


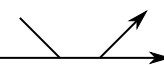
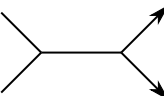
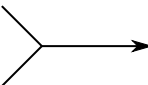
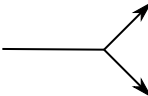
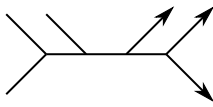
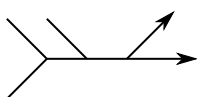
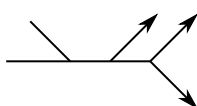
Model reactions (?) : RC00946

Other reactions (?) : R09365


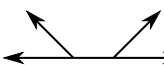
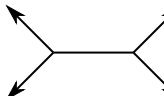
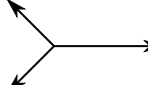
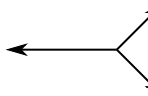
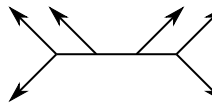
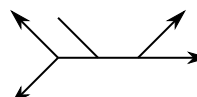
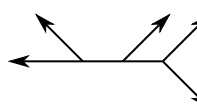
In WormPaths (?) : [Folate cycle](#), [Methionine / S-adenosylmethionine cycle](#)



Irreversible Reactions

Edge	#reactants	#products	side metabolites
	1	1	No
	1	1	Yes
	2	2	No
	2	1	No
	1	2	No
	2	2	Yes
	2	1	Yes
	1	2	Yes

Reversible Reactions

Edge	#reactants	#products	side metabolites
	1	1	No
	1	1	Yes
	2	2	No
	2	1	No
	1	2	No
	2	2	Yes
	2	1	Yes
	1	2	Yes

Main Metabolites

accoa
akg
cys-L
.
.
.
.

Co-reactants

adp gdp
amp gtp
atp h
co2 h2o
coa nad
crn nadh
etfox nadp
etfrd nadph
fad o2
fadh2 pi
 ppi

GPR

acd-1
idh-1 | idh-2
suc1-1 | suc1-2 & suca-1
.
.
.
.

