Rmarinus_578 Expand All Readme 2021-01-07 17:06

Independent Section

Contains tests that are independent of the class of modeled organism, a model's complexity or types of identifiers that are used to describe its components.

Consistency

Stoichiometric Consistency	100.0%
Mass Balance	98.8%
Charge Balance	98.6%
Metabolite Connectivity	100.0%
Unbounded Flux In Default Medium	98.6%
Sub Total	99%

Annotation - Metabolites

Presence of Metabolite Annotation	68.3%
Metabolite Annotations Per Database	Info
pubchem.compound	0.0%
kegg.compound	56.4%
seed.compound	58.1%
inchikey	0.0%
inchi	0.0%
chebi	56.9%
hmdb	38.1%
reactome	0.0%
metanetx.chemical	60.4%
bigg.metabolite	68.3%
biocyc	52.0%
Metabolite Annotation Conformity Per Database	Info
pubchem.compound	0.0%
kegg.compound	100.0%
seed.compound	100.0%
inchikey	0.0%
inchi	0.0%
chebi	100.0%
hmdb	100.0%
reactome	0.0%
metanetx.chemical	100.0%
bigg.metabolite	98.2%
biocyc	100.0%
Uniform Metabolite Identifier Namespace	100.0%

Specific Section

Covers general statistics and specific aspects of a metabolic network that are not universally applicable. See readme for more details.

SBML

SBML Level and Version	Errored
FBC enabled	Errored

Basic Information

Model Identifier	Rmarinus_578
Total Metabolites	871
Total Reactions	929
Total Genes	578
Total Compartments	3
Metabolic Coverage	1.61

Metabolite Information

Unique Metabolites	784
Duplicate Metabolites in Identical Compartments	0
Metabolites without Charge	0
Metabolites without Formula	0
Medium Components	22

Reaction Information

Purely Metabolic Reactions	789
Purely Metabolic Reactions with Constraints	1
Transport Reactions	92
Transport Reactions with Constraints	0
Thermodynamic Reversibility of Purely Metabolic Reactions	0.33
Reactions With Partially Identical Annotations	0.02
Duplicate Reactions	0.00
Reactions With Identical Genes	0.47

Gene-Protein-Reaction (GPR) Associations

Reactions without GPR	158
Fraction of Transport Reactions without GPR	0.59
Enzyme Complexes	70

Rmarinus_578 Expand All Readme 2021-01-07 17:06

Annotation - Reactions

Presence of Reaction Annotation	91.1%
Reaction Annotations Per Database	Info
rhea	30.2%
kegg.reaction	28.5%
seed.reaction	0.0%
metanetx.reaction	42.4%
bigg.reaction	45.6%
reactome	0.0%
ec-code	81.6%
brenda	0.0%
biocyc	30.1%
Reaction Annotation Conformity Per Database	Info
rhea	99.7%
kegg.reaction	100.0%
seed.reaction	0.0%
metanetx.reaction	100.0%
bigg.reaction	100.0%
reactome	0.0%
ec-code	99.2%
brenda	0.0%
biocyc	100.0%
Uniform Reaction Identifier Namespace	100.0%
Sub Total	72%

Annotation - Genes

Presence of Gene Annotation	99.8%
Gene Annotations Per Database	Info
refseq	0.0%
uniprot	0.0%
ecogene	0.0%
kegg.genes	0.0%
ncbigi	0.0%
ncbigene	0.0%
ncbiprotein	99.7%
ccds	0.0%
hprd	0.0%
asap	0.0%
Gene Annotation Conformity Per Database	Info
refseq	0.0%

Biomass Consistency	0.20
Biomass Production In Default Medium	0.26
Unrealistic Growth Rate In Default Medium	false
Biomass Production In Complete Medium	41.0
Blocked Biomass Precursors In Default Medium	0
Blocked Biomass Precursors In Complete Medium	0
Ratio of Direct Metabolites in Biomass Reaction	0.00
Number of Missing Essential Biomass Precursors	35

Energy Metabolism

Non-Growth Associated Maintenance Reaction	1
Growth-associated Maintenance in Biomass Reaction	true
Number of Reversible Oxygen-Containing Reactions	4
Erroneous Energy-generating Cycles	Info
MNXM3	Skipped
MNXM63	Skipped
MNXM51	Skipped
MNXM121	Skipped
MNXM423	Skipped
MNXM6	Skipped
MNXM10	Skipped
MNXM38	Skipped
MNXM208	Skipped
MNXM191	Skipped
MNXM223	Skipped
MNXM7517	Skipped
MNXM12233	Skipped
MNXM558	Skipped
MNXM21	Skipped
MNXM89557	Skipped

Network Topology

Universally Blocked Reactions	53
Orphan Metabolites	5
Dead-end Metabolites	14
Stoichiometrically Balanced Cycles	18
Metabolite Production In Complete Medium	222
Metabolite Consumption In Complete Medium	239

Matrix Conditioning

Rmarinus_578 Expand All Readme 2021-01-07 17:06

ecogene	0.0%
kegg.genes	0.0%
ncbigi	0.0%
ncbigene	0.0%
ncbiprotein	100.0%
ccds	0.0%
hprd	0.0%
asap	0.0%
Sub Total	40%

Annotation - SBO Terms

Metabolite General SBO Presence	0.0%
Metabolite SBO:0000247 Presence	0.0%
Reaction General SBO Presence	45.6%
Metabolic Reaction SBO:0000176 Presence	0.0%
Transport Reaction SBO:0000185 Presence	0.0%
Exchange Reaction SBO:0000627 Presence	68.2%
Demand Reaction SBO:0000628 Presence	0.0%
Sink Reactions SBO:0000632 Presence	Skipped
Gene General SBO Presence	0.0%
Gene SBO:0000243 Presence	0.0%
Biomass Reactions SBO:0000629 Presence	0.0%
Sub Total	10% X2
Total Score	55%

Total Score

55%

Score per Category

Relations	31
Rank	840
Degrees Of Freedom	89

Experimental Data Comparison

Growth Prediction	Skipped
Gene Essentiality Prediction	Skipped

Misc. Tests

Environment

Python Version	3.6.12
Platform	Linux
Memote Version	0.11.1

Rmarinus_578 Expand All Readme 2021-01-07 17:06