

## 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. Parameterization or initialization of the network is not required. See readme for more details.

### Consistency

Stoichiometric Consistency	99.1%	⬇
Mass Balance	97.4%	⬇
Charge Balance	100.0%	⬇
Metabolite Connectivity	100.0%	⬇
Unbounded Flux In Default Medium	100.0%	⬇

Sub Total	99%	⬇
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### Annotation - Metabolites

Presence of Metabolite Annotation	100.0%	⬇
Metabolite Annotations Per Database	Info	⬇
pubchem.compound	0.0%	⬇
kegg.compound	0.0%	⬇
seed.compound	96.4%	⬇
inchikey	0.0%	⬇
inchi	0.0%	⬇
chebi	0.0%	⬇
hmdb	0.0%	⬇
reactome	0.0%	⬇
metanetx.chemical	0.0%	⬇
bigg.metabolite	0.0%	⬇
biocyc	0.0%	⬇
Metabolite Annotation Conformity Per Database	Info	⬇
pubchem.compound	0.0%	⬇
kegg.compound	0.0%	⬇
seed.compound	100.0%	⬇
inchikey	0.0%	⬇
inchi	0.0%	⬇
chebi	0.0%	⬇
hmdb	0.0%	⬇
reactome	0.0%	⬇
metanetx.chemical	0.0%	⬇
bigg.metabolite	0.0%	⬇
biocyc	0.0%	⬇
Uniform Metabolite Identifier Namespace	0.0%	⬇

Sub Total	29%	⬇
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### Annotation - Reactions

Presence of Reaction Annotation	100.0%	⬇
Reaction Annotations Per Database	Info	⬇
rhea	0.0%	⬇
kegg.reaction	0.0%	⬇
seed.reaction	86.0%	⬇
metanetx.reaction	0.0%	⬇
bigg.reaction	0.0%	⬇
reactome	0.0%	⬇
ec-code	0.0%	⬇
brenda	0.0%	⬇
biocyc	0.0%	⬇
Reaction Annotation Conformity Per Database	Info	⬇
rhea	0.0%	⬇
kegg.reaction	0.0%	⬇
seed.reaction	100.0%	⬇
metanetx.reaction	0.0%	⬇
bigg.reaction	0.0%	⬇
reactome	0.0%	⬇
ec-code	0.0%	⬇
brenda	0.0%	⬇
biocyc	0.0%	⬇
Uniform Reaction Identifier Namespace	97.6%	⬇

Sub Total	55%	⬇
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### Annotation - Genes

Presence of Gene Annotation	100.0%	⬇
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	100.0%	⬇
ccds	0.0%	⬇
hprd	0.0%	⬇
asap	0.0%	⬇
Gene Annotation Conformity Per Database	Info	⬇
refseq	0.0%	⬇
uniprot	0.0%	⬇
ecogene	0.0%	⬇
kegg.genes	0.0%	⬇
ncbigi	0.0%	⬇
ncbigene	0.0%	⬇
ncbiprotein	98.0%	⬇
ccds	0.0%	⬇
hprd	0.0%	⬇
asap	0.0%	⬇

Sub Total	40%	⬇
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### Annotation - SBO Terms

Metabolite General SBO Presence	100.0%	⬇
Metabolite SBO:0000247 Presence	100.0%	⬇
Reaction General SBO Presence	100.0%	⬇
Metabolic Reaction SBO:0000176 Presence	100.0%	⬇
Transport Reaction SBO:0000185 Presence	88.6%	⬇
Exchange Reaction SBO:0000627 Presence	100.0%	⬇
Demand Reaction SBO:0000628 Presence	100.0%	⬇
Sink Reactions SBO:0000632 Presence	Skipped	⬇
Gene General SBO Presence	0.0%	⬇
Gene SBO:0000243 Presence	0.0%	⬇
Biomass Reactions SBO:0000629 Presence	100.0%	⬇

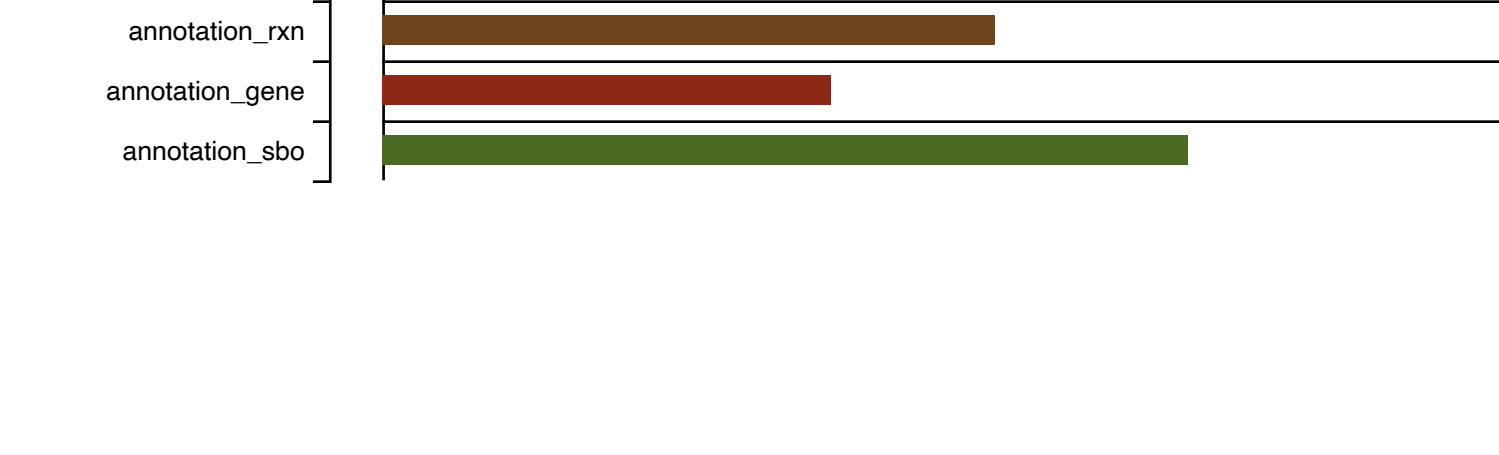
Sub Total	72%	⬇
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Total Score	76%	⬇
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Total Score

76%

Score per Category Export



## 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	Two_cell_model_reduction_level_10_merge_ex	⬇
Total Metabolites	1,811	⬇
Total Reactions	1,845	⬇
Total Genes	892	⬇
Total Compartments	9	⬇
Metabolic Coverage	2.07	⬇

### Metabolite Information

Unique Metabolites	1,811	⬇
Duplicate Metabolites in Identical Compartments	0	⬇
Metabolites without Charge	0	⬇
Metabolites without Formula	0	⬇
Medium Components	19	⬇

### Reaction Information

Purely Metabolic Reactions	1,577	⬇
Purely Metabolic Reactions with Constraints	2	⬇
Transport Reactions	202	⬇
Transport Reactions with Constraints	0	⬇
Thermodynamic Reversibility of Purely Metabolic Reactions	1.00	⬇
Reactions With Partially Identical Annotations	0.00	⬇
Duplicate Reactions	0.00	⬇
Reactions With Identical Genes	0.90	⬇

### Gene-Protein-Reaction (GPR) Associations

Reactions without GPR	131	⬇
Fraction of Transport Reactions without GPR	0.54	⬇
Enzyme Complexes	150	⬇

### Biomass

Biomass Reactions Identified	20	⬇
Biomass Consistency	Info	⬇
Cellwall_biomass__hc	0.37	⬇
Cellwall_biomass__vc	0.37	⬇
DNA_biomass__hc	1.00	⬇
DNA_biomass__vc	1.00	⬇
Inorganicions_biomass__hc	1.00	⬇
Inorganicions_biomass__vc	1.00	⬇
Lipid_biomass__hc	0.00	⬇
Lipid_biomass__vc	0.00	⬇
Pigment_biomass__hc	0.98	⬇
Pigment_biomass__vc	0.98	⬇
Prot_biomass__hc	1.01	⬇
Prot_biomass__vc	1.01	⬇
RNA_biomass__hc	1.00	⬇
RNA_biomass__vc	1.00	⬇
Solpool_biomass__hc	0.28	⬇
Solpool_biomass__vc	0.28	⬇
biomass_eq_33047__hc	0.12	⬇
biomass_eq_33047__vc	0.12	⬇
carb_biomass__hc	0.16	⬇
carb_biomass__vc	0.16	⬇

Biomass Production In Default Medium	Info	⬇
Cellwall_biomass__hc	0.00	⬇
Cellwall_biomass__vc	0.00	⬇
DNA_biomass__hc	0.00	⬇
DNA_biomass__vc	0.00	⬇
Inorganicions_biomass__hc	0.00	⬇
Inorganicions_biomass__vc	0.00	⬇
Lipid_biomass__hc	0.02	⬇
Lipid_biomass__vc	0.02	⬇
Pigment_biomass__hc	0.01	⬇
Pigment_biomass__vc	0.01	⬇
Prot_biomass__hc	0.10	⬇
Prot_biomass__vc	0.10	⬇
RNA_biomass__hc	0.02	⬇
RNA_biomass__vc	0.02	⬇
Solpool_biomass__hc	0.01	⬇
Solpool_biomass__vc	0.01	⬇
biomass_eq_33047__hc	0.24	⬇
biomass_eq_33047__vc	0.24	⬇
carb_biomass__hc	0.32	⬇
carb_biomass__vc	0.32	⬇

Unrealistic Growth Rate In Default Medium	Info	⬇
Cellwall_biomass__hc	false	⬇
Cellwall_biomass__vc	false	⬇
DNA_biomass__hc	false	⬇
DNA_biomass__vc	false	⬇
Inorganicions_biomass__hc	false	⬇
Inorganicions_biomass__vc	false	⬇
Lipid_biomass__hc	false	⬇
Lipid_biomass__vc	false	⬇
Pigment_biomass__hc	false	⬇
Pigment_biomass__vc	false	⬇
Prot_biomass__hc	false	⬇
Prot_biomass__vc	false	⬇
RNA_biomass__hc	false	⬇
RNA_biomass__vc	false	⬇
Solpool_biomass__hc	false	⬇
Solpool_biomass__vc	false	⬇
biomass_eq_33047__hc	false	⬇
biomass_eq_33047__vc	false	⬇
carb_biomass__hc	false	⬇
carb_biomass__vc	false	⬇

Biomass Production In Complete Medium	Info	⬇
Cellwall_biomass__hc	0.00	⬇
Cellwall_biomass__vc	0.00	⬇
DNA_biomass__hc	0.10	⬇
DNA_biomass__vc	0.10	⬇
Inorganicions_biomass__hc	0.20	⬇
Inorganicions_biomass__vc	0.20	⬇
Lipid_biomass__hc	2.00	⬇
Lipid_biomass__vc	2.00	⬇
Pigment_biomass__hc	0.50	⬇
Pigment_biomass__vc	0.50	⬇
Prot_biomass__hc	9.14	⬇
Prot_biomass__vc	9.14	⬇
RNA_biomass__hc	1.80	⬇
RNA_biomass__vc	1.80	⬇
Solpool_biomass__hc	0.57	⬇
Solpool_biomass__vc	0.57	⬇
biomass_eq_33047__hc	20.94	⬇
biomass_eq_33047__vc	20.94	⬇
carb_biomass__hc	27.93	⬇
carb_biomass__vc	27.93	⬇

Blocked Biomass Precursors In Default Medium	Info	⬇
Cellwall_biomass__hc	Errored	⬇
Cellwall_biomass__vc	Errored	⬇
DNA_biomass__hc	Errored	⬇
DNA_biomass__vc	Errored	⬇
Inorganicions_biomass__hc	Errored	⬇
Inorganicions_biomass__vc	Errored	⬇
Lipid_biomass__hc	Errored	⬇
Lipid_biomass__vc	Errored	⬇
Pigment_biomass__hc	Errored	⬇
Pigment_biomass__vc	Errored	⬇
Prot_biomass__hc	Errored	⬇
Prot_biomass__vc	Errored	⬇
RNA_biomass__hc	Errored	⬇
RNA_biomass__vc	Errored	⬇
Solpool_biomass__hc	Errored	⬇
Solpool_biomass__vc	Errored	⬇
biomass_eq_33047__hc	Errored	⬇
biomass_eq_33047__vc	Errored	⬇
carb_biomass__hc	Errored	⬇
carb_biomass__vc	Errored	⬇

Blocked Biomass Precursors In Complete Medium	Info	⬇
Cellwall_biomass__hc	Errored	⬇
Cellwall_biomass__vc	Errored	⬇
DNA_biomass__hc	Errored	⬇
DNA_biomass__vc	Errored	⬇
Inorganicions_biomass__hc	Errored	⬇
Inorganicions_biomass__vc	Errored	⬇
Lipid_biomass__hc	Errored	⬇
Lipid_biomass__vc	Errored	⬇
Pigment_biomass__hc	Errored	⬇
Pigment_biomass__vc	Errored	⬇
Prot_biomass__hc	Errored	⬇
Prot_biomass__vc	Errored	⬇
RNA_biomass__hc	Errored	⬇
RNA_biomass__vc	Errored	⬇
Solpool_biomass__hc	Errored	⬇
Solpool_biomass__vc	Errored	⬇
biomass_eq_33047__hc	Errored	⬇
biomass_eq_33047__vc	Errored	⬇
carb_biomass__hc	Errored	⬇
carb_biomass__vc	Errored	⬇

Ratio of Direct Metabolites in Biomass Reaction	Info	⬇
Cellwall_biomass__hc	Errored	⬇
Cellwall_biomass__vc	Errored	⬇
DNA_biomass__hc	Errored	⬇
DNA_biomass__vc	Errored	⬇
Inorganicions_biomass__hc	Errored	⬇
Inorganicions_biomass__vc	Errored	⬇
Lipid_biomass__hc	Errored	⬇
Lipid_biomass__vc	Errored	⬇
Pigment_biomass__hc	Errored	⬇
Pigment_biomass__vc	Errored	⬇
Prot_biomass__hc	Errored	⬇
Prot_biomass__vc	Errored	⬇
RNA_biomass__hc	Errored	⬇
RNA_biomass__vc	Errored	⬇
Solpool_biomass__hc	Errored	⬇
Solpool_biomass__vc	Errored	⬇
biomass_eq_33047__hc	Errored	⬇
biomass_eq_33047__vc	Errored	⬇
carb_biomass__hc	Errored	⬇
carb_biomass__vc	Errored	⬇

Number of Missing Essential Biomass Precursors	Info	⬇
Cellwall_biomass__hc	Errored	⬇
Cellwall_biomass__vc	Errored	⬇
DNA_biomass__hc	Errored	⬇
DNA_biomass__vc	Errored	⬇
Inorganicions_biomass__hc	Errored	⬇
Inorganicions_biomass__vc	Errored	⬇
Lipid_biomass__hc	Errored	⬇
Lipid_biomass__vc	Errored	⬇
Pigment_biomass__hc	Errored	⬇
Pigment_biomass__vc	Errored	⬇
Prot_biomass__hc	Errored	⬇
Prot_biomass__vc	Errored	⬇
RNA_biomass__hc	Errored	⬇
RNA_biomass__vc	Errored	⬇
Solpool_biomass__hc	Errored	⬇
Solpool_biomass__vc	Errored	⬇
biomass_eq_33047__hc	Errored	⬇
biomass_eq_33047__vc	Errored	⬇
carb_biomass__hc	Errored	⬇
carb_biomass__vc	Errored	⬇

### Energy Metabolism

Non-Growth Associated Maintenance Reaction	Errored	⬇
Growht-associated Maintenance in Biomass Reaction	Info	⬇
Cellwall_biomass__hc	Errored	⬇
Cellwall_biomass__vc	Errored	⬇
DNA_biomass__hc	Errored	⬇
DNA_biomass__vc	Errored	⬇
Inorganicions_biomass__hc	Errored	⬇
Inorganicions_biomass__vc	Errored	⬇
Lipid_biomass__hc	Errored	⬇
Lipid_biomass__vc	Errored	⬇
Pigment_biomass__hc	Errored	⬇
Pigment_biomass__vc	Errored	⬇
Prot_biomass__hc	Errored	⬇
Prot_biomass__vc	Errored	⬇
RNA_biomass__hc	Errored	⬇
RNA_biomass__vc	Errored	⬇
Solpool_biomass__hc	Errored	⬇
Solpool_biomass__vc	Errored	⬇
biomass_eq_33047__hc	Errored	⬇
biomass_eq_33047__vc	Errored	⬇
carb_biomass__hc	Errored	⬇
carb_biomass__vc	Errored	⬇
Number of Reversible Oxygen-Containing Reactions	26	⬇
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	563	⬇
Orphan Metabolites	156	⬇
Dead-end Metabolites	149	⬇
Stoichiometrically Balanced Cycles	0	⬇
Metabolite Production In Complete Medium	654	⬇
Metabolite Consumption In Complete Medium	673	⬇

### Matrix Conditioning

Ratio Min/Max Non-Zero Coefficients	0.00	⬇
Independent Conservation Relations	222	⬇
Rank	1589	⬇
Degrees Of Freedom	256	⬇

### Experimental Data Comparison

Growth Prediction	Skipped	⬇
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