Expand All Readme 2020-11-17 15:05

Independent Section

Contains tests that are independent of the class of modeled organism, a model's

Consistency

Stoichiometric Consistency	99.0%
Mass Balance	95.7%
Charge Balance	100.0%
Metabolite Connectivity	98.2%
Unbounded Flux In Default Medium	83.8%
Sub Total	96%

Annotation - Metabolites

Presence of Metabolite Annotation	84.3%
Metabolite Annotations Per Database	Info
pubchem.compound	0.0%
kegg.compound	54.1%
seed.compound	0.0%
inchikey	0.0%
inchi	46.5%
chebi	80.7%
hmdb	0.1%
reactome	0.0%
metanetx.chemical	0.5%
bigg.metabolite	0.0%
biocyc	0.0%
Metabolite Annotation Conformity Per Database	Info
pubchem.compound	0.0%
kegg.compound	100.0%
seed.compound	0.0%
inchikey	0.0%

Specific Section

Covers general statistics and specific aspects of a metabolic network that are not universally

SBML

SBML Level and Version	Errored
FBC enabled	Errored

Basic Information

Model Identifier	
Total Metabolites	1,818
Total Reactions	2,320
Total Genes	1,325
Total Compartments	7
Metabolic Coverage	1.75

Metabolite Information

Unique Metabolites	1,818
Duplicate Metabolites in Identical Compartments	6
Metabolites without Charge	0
Metabolites without Formula	0
Medium Components	8

Reaction Information

Purely Metabolic Reactions	1,499
Purely Metabolic Reactions with Constraints	1
Transport Reactions	435
Transport Reactions with Constraints	1
Thermodynamic Reversibility of Purely Metabolic Reactions	0.40
Reactions With Partially Identical Annotations	0.00

hmdb	100.0%
reactome	0.0%
metanetx.chemical	100.0%
bigg.metabolite	0.0%
biocyc	0.0%
Uniform Metabolite Identifier Namespace	100.0%
Sub Total	62%

Annotation - Reactions

Presence of Reaction Annotation	53.4%
Reaction Annotations Per Database	Info
rhea	0.3%
kegg.reaction	0.0%
seed.reaction	0.0%
metanetx.reaction	0.0%
bigg.reaction	0.0%
reactome	0.0%
ec-code	53.4%
brenda	0.0%
biocyc	0.0%
Reaction Annotation Conformity Per Database	Info
rhea	100.0%
kegg.reaction	100.0%
seed.reaction	0.0%
metanetx.reaction	0.0%
bigg.reaction	0.0%
reactome	0.0%
ec-code	100.0%
brenda	0.0%
biocyc	0.0%
Uniform Reaction Identifier Namespace	100.0%

Gene-Protein-Reaction (GPR) Associations

Reactions without GPR	604
Fraction of Transport Reactions without GPR	0.75
Enzyme Complexes	0

Biomass

Biomass Reactions Identified	1
Biomass Consistency	0.00
Biomass Production In Default Medium	0.94
Unrealistic Growth Rate In Default Medium	false
Biomass Production In Complete Medium	87.43
Blocked Biomass Precursors In Default Medium	0
Blocked Biomass Precursors In Complete Medium	0
Ratio of Direct Metabolites in Biomass Reaction	0.29
Number of Missing Essential Biomass Precursors	7

Energy Metabolism

Non-Growth Associated Maintenance Reaction	Errored
Growth-associated Maintenance in Biomass Reaction	false
Number of Reversible Oxygen-Containing Reactions	5
Erroneous Energy-generating Cycles	Info
MNXM3	Skipped

Annotation - Genes

Presence of Gene Annotation	0.0%
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	0.0%
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	0.0%
ccds	0.0%
hprd	0.0%
asap	0.0%
Sub Total	0%

Annotation - SBO Terms

Metabolite General SBO Presence	0.0%
Metabolite SBO:0000247 Presence	0.0%
Reaction General SBO Presence	0.0%
Metabolic Reaction	0.0%

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	372
Orphan Metabolites	65
Dead-end Metabolites	88
Stoichiometrically Balanced Cycles	138
Metabolite Production In Complete Medium	352
Metabolite Consumption In Complete Medium	675

Matrix Conditioning

Ratio Min/Max Non-Zero Coefficients	0.00
Independent Conservation Relations	102
Rank	1716
Degrees Of Freedom	604

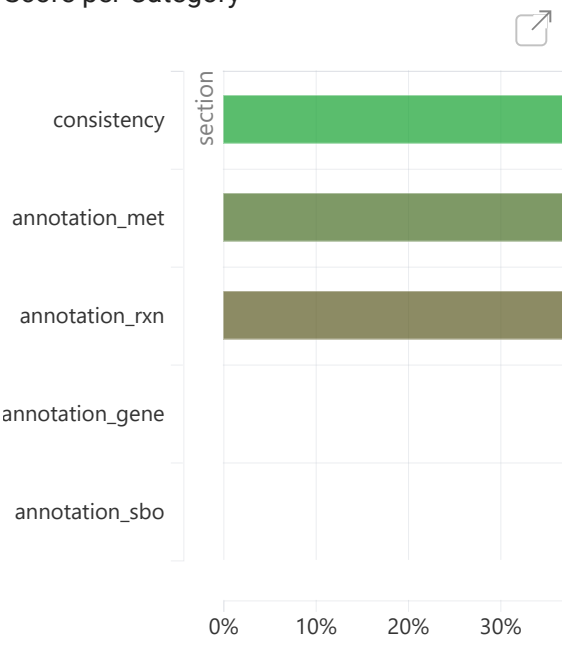
Experimental Data Comparison

Exchange Reaction SBO:0000627 Presence	0.0%
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	0%
Total Score	46%

Total Score

46%

Score per Category



Misc. Tests

Environment

Python Version	3.6.12
Platform	Linux
Memote Version	0.11.1