



Change Current Database

Current Database: *Arabidopsis thaliana col*

Search in Current Database:

Enter a gene, protein, metabolite or pathway...



Compound Name Resolutions

Compound Pathway Coverage

Optimum Value of the Minimized Objective Function: 108

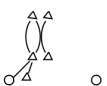
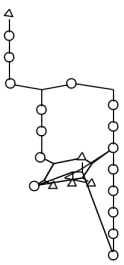
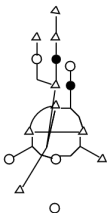
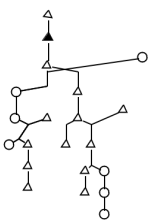
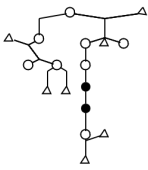
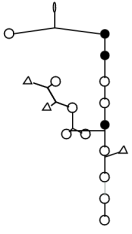


You utilized the cost function **Pathway Harmony**:

43 compound match results form the input to the covering algorithm.  
43 of the recognized compounds are substrates in 496 PGDB reactions.  
42 of the recognized compounds are substrates in 287 PGDB pathways;  
a pathway covering set of 18 pathways covers those 42 compounds:

This function favors pathways where either the 'input' substrates are metabolites that show an increase in abundance, and the 'output' substrates are metabolites that show a decrease, or vice versa.

Colored nodes are compounds in the covered set;  
Colored edges are reactions with side compounds in the covered set;  
BLUE - no indicated change in quantity; GREEN - an increase in quantity;  
RED - a decrease in quantity.

Pathway	Objective Function Value	Pathway Glyph	Covered Compounds
chlorogenic acid biosynthesis II	10		shikimate
glycerol degradation I	10		glycerol
glyoxylate cycle	6		(S)-malate citrate cis-aconitate succinate
L-alanine degradation II (to D-lactate)	4		L-glutamate 2-oxoglutarate (R)-lactate pyruvate L-alanine
L-ascorbate biosynthesis VII (plants, D-galacturonate pathway)	10		L-galactonate
phosphatidylethanolamine biosynthesis III	5		L-serine ethanolamine
photorespiration	4		L-serine glycine D-glycerate 2-oxoglutarate L-glutamate
putrescine degradation IV	5		4-aminobutanoate putrescine
sorbitol biosynthesis II	6		D-gluconate keto-D-fructose
superpathway of anaerobic sucrose degradation	4		β-D-fructofuranose sucrose (S)-lactate pyruvate

<a href="#">superpathway of aspartate and asparagine biosynthesis</a>	4		<a href="#">L-asparagine</a> <a href="#">L-aspartate</a> <a href="#">L-glutamine</a> <a href="#">L-glutamate</a> <a href="#">2-oxoglutarate</a>
<a href="#">superpathway of branched chain amino acid biosynthesis</a>	5		<a href="#">L-threonine</a> <a href="#">pyruvate</a> <a href="#">2-oxoglutarate</a> <a href="#">L-isoleucine</a> <a href="#">L-glutamate</a> <a href="#">L-valine</a> <a href="#">L-leucine</a>
<a href="#">superpathway of L-citrulline metabolism</a>	6		<a href="#">fumarate</a> <a href="#">L-aspartate</a> <a href="#">L-proline</a> <a href="#">L-glutamate</a> <a href="#">2-oxoglutarate</a> <a href="#">L-glutamine</a>
<a href="#">superpathway of L-lysine, L-threonine and L-methionine biosynthesis II</a>	4		<a href="#">L-lysine</a> <a href="#">2-oxoglutarate</a> <a href="#">L-glutamate</a> <a href="#">pyruvate</a> <a href="#">L-aspartate</a> <a href="#">L-cysteine</a> <a href="#">L-threonine</a>
<a href="#">superpathway of phenylalanine, tyrosine and tryptophan biosynthesis</a>	6		<a href="#">L-phenylalanine</a> <a href="#">L-tyrosine</a> <a href="#">2-oxoglutarate</a> <a href="#">L-glutamate</a> <a href="#">L-serine</a> <a href="#">L-tryptophan</a> <a href="#">L-glutamine</a> <a href="#">pyruvate</a>
<a href="#">superpathway of tetrahydrofolate biosynthesis</a>	4		<a href="#">pyruvate</a> <a href="#">L-glutamine</a> <a href="#">L-glutamate</a> <a href="#">formate</a>
<a href="#">trehalose degradation II (cytosolic)</a>	5		<a href="#">α,α-trehalose</a> <a href="#">β-D-glucopyranose</a> <a href="#">α-D-glucopyranose</a>
<a href="#">urate conversion to allantoin I</a>	10		<a href="#">urate</a>

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