

<b>Functional Category</b>	<b>Examples of Included Processes</b>
Carbohydrate metabolism	Glycolysis Krebs Cycle Gluconeogenesis Pentose Phosphate pathway Synthesis and degradation of starch Fructose/Mannose/Galactose Calvin Cycle Inositol metabolism
Light Harvesting	Photochemical reaction centers (PSI e PSII)
Oxidative phosphorylation	
Lipid metabolism	Fatty acid biosynthesis Fatty acid elongation in mitochondria Fatty acid metabolism Synthesis and degradation of ketone bodies Steroid hormone biosynthesis Glycerolipid metabolism Glycerophospholipid metabolism Ether lipid metabolism Sphingolipid metabolism Arachidonic acid metabolism Alpha-Linolenic acid metabolism Biosynthesis of unsaturated fatty acids
Nucleotide metabolism	Purine metabolism Pyrimidine metabolism
AminoAcid and nitrogen metabolism	Alanine, aspartate and glutamate metabolism Glycine, serine and threonine metabolism Cysteine and methionine metabolism Valine, leucine and isoleucine degradation Valine, leucine and isoleucine biosynthesis Lysine biosynthesis Lysine degradation Arginine and proline metabolism Histidine metabolism Tyrosine metabolism Phenylalanine metabolism Tryptophan metabolism Phenylalanine, tyrosine and tryptophan biosynthesis beta-Alanine metabolism Taurine and hypotaurine metabolism Selenoamino acid metabolism Cyanoamino acid metabolism

	Glutathione metabolism	
	Nitrogen assimilation pathway	
Cell wall metabolism	N-Glycan biosynthesis	
	Glycosylphosphatidylinositol(GPI)-anchor biosynthesis	
	Glycosphingolipid biosynthesis - globo series	
	Glycosphingolipid biosynthesis - ganglio series	
	Other glycan degradation	
	Lignin metabolism	
	Suberin metabolism	
	Phenylpropanoid biosynthesis	
	Structural proteins of the cell wall	
	Cell wall growth/extension	
	Cell wall differentiation	
Vitamin and Cofactor metabolism	Thiamine metabolism	
	Riboflavin metabolism	
	Vitamin B6 metabolism	
	Nicotinate and nicotinamide metabolism	
	Pantothenate and CoA biosynthesis	
	Biotin metabolism	
	Lipoic acid metabolism	
	Folate biosynthesis	
	One carbon pool by folate	
	Retinol metabolism	
	Ubiquinone and other terpenoid-quinone biosynthesis	
Phorphyrin and chlorophyll metabolism		
Hormone biosynthesis	Auxin synthesis and degradation	Tryptophane metabolism
	ABA synthesis and degradation	Carotenoid byosynthesis
	Ethylene synthesis and degradation	
	Cytokinin synthesis and degradation	Zeatin biosynthesis
	Brassinosteroid synthesis and degradation	Brassinosteroid biosynthesis
	Gibberellin synthesis and degradation	Diterpenoid biosynthesis
	Salicylic acid synthesis and degradation	
	Methyl jasmonate	
Carotenoid Metabolism		
Other terpenoids metabolism	Terpenoid backbone biosynthesis	
	Monoterpenoid biosynthesis	
	Sesquiterpenoid biosynthesis	
	Limonene and pinene degradation	
	Polyketide sugar unit biosynthesis	
Flavonoid and anthocyanin metabolism	Isoflavonoid biosynthesis	
	Anthocyanin biosynthesis	
	Flavonoid biosynthesis	

Biosynthesis of other Secondary Metabolites	<ul style="list-style-type: none"> <li>Stilbenoid, diarylheptanoid and gingerol biosynthesis</li> <li>Flavone and flavonol biosynthesis</li> <li>Indole alkaloid biosynthesis</li> <li>Isoquinoline alkaloid biosynthesis</li> <li>Tropane, piperidine and pyridine alkaloid biosynthesis</li> <li>Acridone alkaloid biosynthesis</li> <li>Caffeine metabolism</li> <li>Betalain biosynthesis</li> <li>Glucosinolate biosynthesis</li> <li>Benzoxazinoid biosynthesis</li> </ul>	
Sulphur metabolism		
DNA metabolism	<ul style="list-style-type: none"> <li>Replication/repair</li> <li>Histones and associated proteins</li> <li>Methylation and acetylation</li> <li>Telomere maintenance</li> </ul>	
RNA metabolism	<ul style="list-style-type: none"> <li>Transcription</li> <li>RNA binding proteins</li> </ul>	
Protein Metabolism	<ul style="list-style-type: none"> <li>Translation</li> <li>Chaperones</li> <li>Degradation</li> <li>Modification</li> </ul>	
Signal Transduction	<ul style="list-style-type: none"> <li>Biotic stress signal transduction</li> <li>Abiotic stress signal transduction</li> <li>Internal signal transduction</li> <li>Signal transduction - general</li> </ul>	<ul style="list-style-type: none"> <li>ABA</li> <li>Drought</li> <li>Cold</li> <li>Light</li> <li>Heat</li> <li>Jasmonic acid</li> <li>Salicylates</li> <li>Auxin</li> <li>Cytokinin</li> <li>Ethylene</li> <li>Brassinosteroid</li> <li>Some Kinases and phosphates</li> <li>Some Transcription Factors</li> <li>Calcium signaling</li> </ul>
Cell cycle	<ul style="list-style-type: none"> <li>Meiosis</li> <li>Mitosis</li> <li>Cell cycle control</li> </ul>	
Circadian Clock		
Development	<ul style="list-style-type: none"> <li>Differentiation</li> <li>Speciation</li> </ul>	

Transporters

Simporters

Antiporters

Aquaporin

Membrane transporters

Pumps

Channels

Carriers

Senescence and cell death

Cytoskeleton and vesicle trafficking

Secretory pathways

Endocytic pathway

Protein sorting

Pathogen Resistance

Redox Metabolism

Transposable element-related

Transposase

Reverse transcriptase

Others

Unknown

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