Combined Pathway Analysis

Name: pathway_analysis

Input data

- Sequence data:
  - Total sequences: 19
  - IDs/Sequences with sequence data: 19
  - IDs/Sequences with Gene Ontology Terms: 10
  - IDs/Sequences with Enzyme Code Annotations: 8
  - IDs/Sequences with Blast results: 19
  - IDs/Sequences with EggNog results: 1

Stats for Reactome database

- Found pathways: 49
- Enriched pathways: 0
- Sequences linked to pathways: 19

Stats for KEGG database

- Found pathways: 0
- Enriched pathways: 0
- Sequences linked to pathways: 0

Stats for Plant Reactome database

- Found pathways: 4
- Enriched pathways: 0
- Sequences linked to pathways: 13

Analysis Parameters

Analysis Parameters

Parameter	Value
Sequences (. box, .fasta, . annot)	
Run Reactome Pathway Analysis	true
Run KEGG Pathway Analysis	true
Keep Most Specific Pathways	true
Add Pairwise Expression Data	false

Give Priority to Taxon	false
Blast Expectation Value	1.0E-3
Run Blast to link via Protein IDs	true
Link with GeneOntology Terms	true
Link KEGG Orthologs via EggNog	true
Link via Enzyme Codes	true
Run Blast to link via Protein IDs	true
Link with GeneOntology Terms	true
Run Gramene Pathway Analysis	true
Blast Expectation Value	1.0E-3
Give Priority to Taxon	false
Link with GeneOntology Terms	true
Keep Most Specific Pathways	true
Include Categories	Genetic Information Processing, Cellular Processes, Environmental Information Processing, Organismal Systems, Human Diseases, Drug Development, Metabolism
Include Categories	Disease, Cellular responses to stimuli, Gene expression (Transcription), Protein localization, Drug ADME, Autophagy, Mycobacterium tuberculosis biological processes, Reproduction, Metabolism of RNA, Immune System, Organelle biogenesis and maintenance, Hemostasis, Digestion and absorption, Circadian Clock, DNA replication and repair, Signal Transduction, Extracellular matrix organization, Vesicle-mediated transport, DNA Replication, Chromatin organization, Metabolism, Programmed Cell Death, Muscle contraction, Drosophila signaling pathways, Cell-Cell communication, Cell Cycle, DNA Repair, Innate Immune System, Neuronal System, Metabolism of proteins, Developmental Biology, Sensory Perception, Transport of small molecules
Include Categories	Cellular processes, Responses to stimuli: biotic stimuli and stresses, Responses to stimuli: abiotic stimuli and stresses, Metabolism and regulation, Circadian rhythm, Growth and developmental processes
EggNog Input Type	CDS
EggNog Taxonomic Scope	Adjust Automatically (auto)
EggNog Target Orthologs	All
EggNog GO Evidence	Non-Electronic
EggNog Minimum Hit e-Value	1.0E-3

References

- Fabregat A et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic acids research, 46*(D1), D649-D655.
- Kanehisa M. and Goto S. (2000). KEGG: kyoto encyclopedia of genes and genomes. *Nucleic acids research, 28*(1), 27-30.
- Subramanian A et al. (2005). Gene set enrichment analysis: a knowledge-based approach for interpreting genome-wide expression profiles. *Proceedings of the National Academy of Sciences of the United States of America, 102*(43), 15545-50.
- OmicsBox - Bioinformatics made easy. BioBam Bioinformatics. March 3, 2019. www.biobam.com/omicsbox.