

**Table S3.** Biological processes over-represented in ortholog clade C<sub>3</sub>:CAM:C<sub>4</sub> in *Agave americana*. C<sub>3</sub>:CAM:C<sub>4</sub> represents orthologs shared only by C<sub>3</sub>, CAM and C<sub>4</sub> species.

GO ID	Corrected	Description
9963	6.93E-06	positive regulation of flavonoid biosynthetic process
45449	5.65E-05	regulation of transcription
9962	6.42E-05	regulation of flavonoid biosynthetic process
6355	6.42E-05	regulation of transcription, DNA-dependent
51252	8.74E-05	regulation of RNA metabolic process
9889	8.74E-05	regulation of biosynthetic process
31326	8.74E-05	regulation of cellular biosynthetic process
10200	2.44E-04	response to chitin
10468	2.59E-04	regulation of gene expression
80090	5.23E-04	regulation of primary metabolic process
10089	6.52E-04	xylem development
10556	6.52E-04	regulation of macromolecule biosynthetic process
6855	6.97E-04	drug transmembrane transport
15893	6.97E-04	drug transport
19219	6.97E-04	regulation of nucleobase, nucleoside, nucleotide and nucleic acid metabolic process
31323	9.84E-04	regulation of cellular metabolic process
60255	9.84E-04	regulation of macromolecule metabolic process
42493	9.84E-04	response to drug
51171	1.25E-03	regulation of nitrogen compound metabolic process
19222	1.33E-03	regulation of metabolic process
10087	2.22E-03	phloem or xylem histogenesis
43455	5.07E-03	regulation of secondary metabolic process
9725	2.72E-02	response to hormone stimulus
9061	4.01E-02	anaerobic respiration