

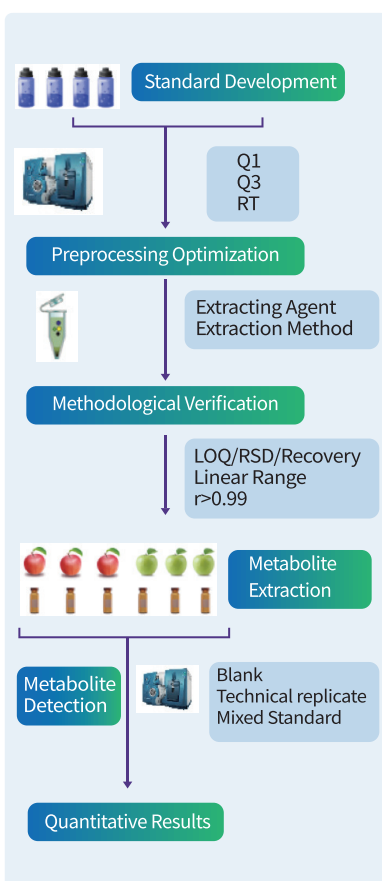
# ANTHOCYANIDIN METABOLOMICS

## TECHNOLOGY INTRODUCTION

Anthocyanidin detection is a targeted metabolomics approach with accurate identification and quantification of 108 anthocyanidins, which include pelargonidins, cyanidins, delphinidins, peonidins, petunidins, malvidins, procyanidins, among others. Metware's anthocyanidin metabolomics features the following:

**01** Wide coverage: 108 anthocyanidin metabolites over 8 different types

**02** Absolute quantification of 45 metabolites with standard curve  $r > 0.99$  and relative quantification of 63 metabolites

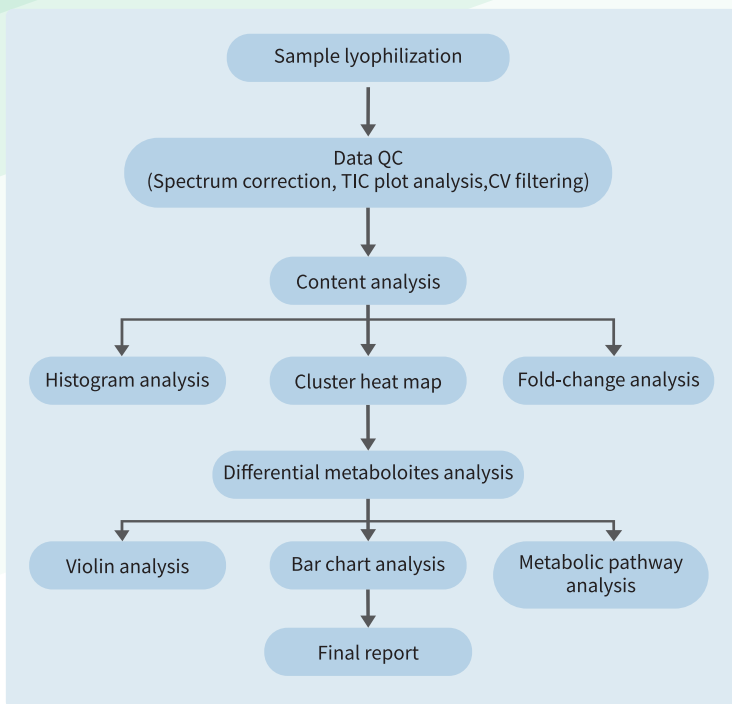


## LIST OF METABOLITES

Category	Quantity	Representative substance
Cyanidins	17	Cyanidin-3-O-galactoside, Cyanidin-3-O-glucoside, Cyanidin-3-O-rutinoside, Cyanidin-3-O-sophoroside
Delphinidins	16	Delphinidin, Delphinidin-3-O-glucoside, Delphinidin-3-O-galactoside, Delphinidin-3-O-arabinoside
Malvidins	13	Malvidin, Malvidin-3-O-arabinoside, Malvidin-3-O-galactoside, Malvidin-3-O-sophoroside, Malvidin-3-O-glucoside
Pelargonidins	19	Pelargonidin, Pelargonidin-3-O-arabinoside, Pelargonidin-3-O-galactoside, Pelargonidin-3-O-glucoside
Peonidins	17	Peonidin, Peonidin-3-O-arabinoside, Peonidin-3-O-galactoside, Peonidin-3-O-glucoside, Peonidin-3-O-rutinoside
Petunidins	11	Petunidin-3-O-arabinoside, Petunidin-3-O-glucoside, Petunidin-3-O-sambubioside, Petunidin-3,5-O-diglucoside
Procyanidins	6	Procyanidin A1, Procyanidin A2, Procyanidin B1, Procyanidin B2, Procyanidin B3, Procyanidin C1
Flavonoids	9	Kaempferol-3-O-rutinoside, Afzelin, Chalcone, Dihydrokaempferol, Naringenin, Rutin, Naringenin-7-O-glucoside
Total	108	



## PROJECT WORKFLOW



## DATA ANALYSIS COMPONENTS

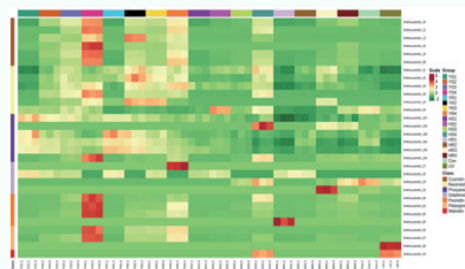


Figure: Cluster heat map of sample metabolite content

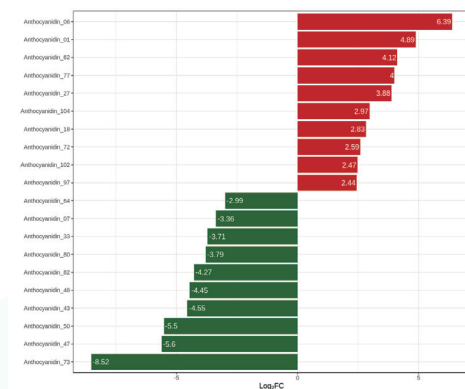


Figure: Differential metabolite fold-change bar chart



## SAMPLE REQUIREMENTS

Sample	Recommended sample	Minimum sample	Biological duplication
Stem, bud, node, leaf, root, flower, fruit, callus	600 mg	300mg	>3



## SELECTED PUBLICATIONS

Year	Journal	Title
2020	Molecular Plant	Genome-wide dissection of co-selected UV-B responsive pathways in the UV-B adaptation of qingke
2019	Plant Biotechnology Journal	Ethylene mediates the branching of the jasmonate-induced flavonoid biosynthesis pathway by suppressing anthocyanin biosynthesis in red Chinese pear fruits
2020	Plant Cell and Environment	Retrotransposon promoter of Ruby1 controls both light- and cold-induced accumulation of anthocyanins in blood orange
2020	Horticulture Research	MiR156 regulates anthocyanin biosynthesis through SPL targets and other microRNAs in poplar
2020	Food Chemistry	Transcriptome and metabolome profiling unveil the mechanisms of Ziziphus jujuba Mill. peel coloration
2020	Food Chemistry	Transcriptomics integrated with metabolomics reveals the effect of regulated deficit irrigation on anthocyanin biosynthesis in Cabernet Sauvignon grape berries



## APPLICATIONS

