

Supporting material

UV SPECTROPHOTOMETRIC QUANTIFICATION OF VINCRISTINE AND VINBLASTINE IN *CATHARANTHUS ROSEUS* EXTRACTS

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1. *Catharanthus roseus* Plant Material

Different *C. roseus* plants subjected to various treatments were collected as shown in Table S1 below.

Table S1. Application modes of treatments administered to *C. roseus*

Batch	Treatment	Replicates	Application Mode
Batch 1	[K] = 20 g/L	10	Plants were watered once per week with the specified potassium solution. Same watering schedule as
Batch 2	[K] = 40 g/L	10	
Batch 3	[K] = 60 g/L	10	
Batch 4	NPK 20/10/10 at 25 g	10	Chemical fertilizer incorporated into the substrate after transplanting.
Batch 5	NPK 20/10/10 at 50 g	10	
Batch 6	NPK 20/10/10 at 75 g	10	

Legend: N = Nitrogen; P = Phosphorus; K = Potassium

2. Quantification of vincristine and vinblastine

Absorbance of vincristine sulphate and vinblastine sulphate standard solutions prepared at concentrations ranging from 5–25 µg/mL were measured at 221 nm and 208 nm, respectively. The values obtained are presented in Table S2 below:

Table S2: Concentrations of standard solutions and their absorbance

Concentration (µg/mL)	Absorbances	
	VCR	VLB
5	– 0.129	– 0.301
10	0.102	0.639
15	0.390	1.425
20	0.651	1.752
25	0.893	2.615

Regression lines were plotted from these data and are presented in Figures S1 and S2 below:

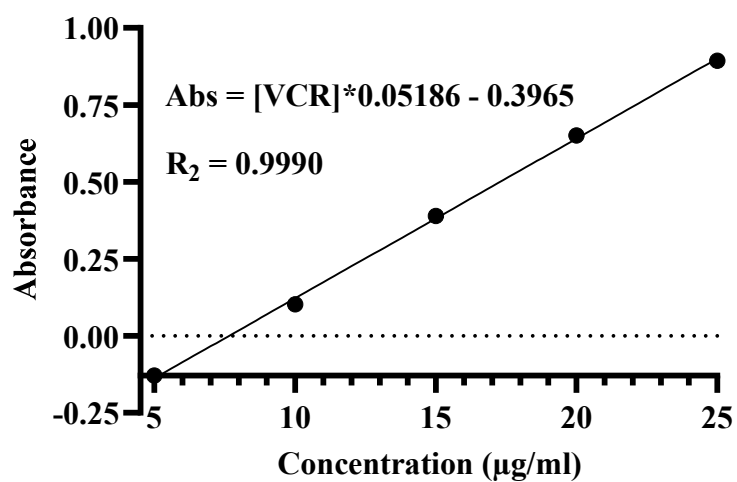


Figure S1: Regression line of vincristine (VCR) from standard solutions.

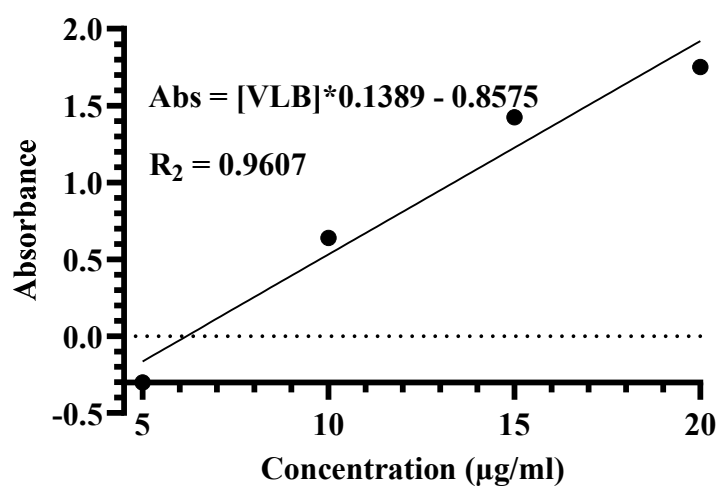


Figure S2: Regression line of vinblastine (VLB) from standard solutions.