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Valepotriate pattern in bioreactor culture of *Valeriana fauriei* adventitious roots

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Objectives

The aim of this work was to compare valepotriate production and valepotriate pattern in *Valeriana fauriei* adventitious root culture using various culture media.

Materials and Methods

1. Material

In bioreactor cultured adventitious roots and wild roots of *Valeriana fauriei*.

2. Methods

Adventitious roots of *Valeriana fauriei* was cultured without plant growth regulators in glass balloon type bubble bioreactors 3 L (2 L of medium) were used.

Valepotriate content were analysis by HPLC, adventitious roots of *Valeriana fauriei* equipped with Bondapak C18 column, 254nm UV detector.

Results and Discussion

Among the various culture media B5 medium was the best result for the *Valeriana fauriei* adventitious root growth.

The HPLC pattern was different in the various culture media.

Table 1. HPLC pattern in the various culture media. (A, B, C, D, E compound is unknown.)

Retention time	33.733±0.39	35.900±0.41	36.591±0.32	39.483±0.41	42.114±0.41	42.954±0.47	45.190±0.17
	A	isovaltrate	valtrate	B	C	D	E
In MS medium	5.6571	2.8349	2.0814	1.3611	30.7506	0.8973	—
In WPM medium	5.1358	2.2157	0.4622	3.7819	—	1.1022	2.4363
In B5 medium	1.6876	0.7373	0.9020	1.0896	0.2174	0.2174	0.7323
Wild root	1.1479	56.8887	5.8436	1.7192	0.1179	0.4985	1.7307