

potato anthocyanin extraction and purification

Yuanjun Yang, Fang Liu

Abstract

Potato tubers (250 g) were washed with distilled water and smashed in 500 mL of a mixture containing 50% alcohol and 1.6% citric acid. The resulting mixture was filtrated twice and centrifuged at 4000 rpm. The supernatant was transferred into a column filled with the pretreated macroporous resin AB-8 for 6 h, and the pigments absorbed in AB-8 were eluted with 95% alcohol. The eluate was concentrated with rotary evaporator at 30 °C and dried in vacuo for 12 h. Two biological replicates were used in this study.

Citation: Yuanjun Yang, Fang Liu potato anthocyanin extraction and purification. **protocols.io**

dx.doi.org/10.17504/protocols.io.k4mcyu6

Published: 02 Dec 2017

Protocol

Step 1.

Macroporous resin AB-8 were soaked with anhydrous ethanol 24h, fully swollen, and then washed with deionized water to no alcohol, lastly the resin were dried for use.

Step 2.

Potato tubers (250 g) were washed with distilled water and were cut into large pieces.

Step 3.

The large pieces were smashed in 500 mL of a mixture containing 50% alcohol and 1.6% citric acid.

Step 4.

The resulting mixture was filtrated twice with filter paper and then centrifuged at 4000 rpm 10min.

Step 5.

The supernatant was transferred into a column filled with the pretreated macroporous resin AB-8 for 6 h, and the pigments would be absorbed in AB-8.

Step 6.

The pigments were eluted with 95% alcohol until the resin became no color.

Step 7.

The eluate was concentrated with rotary evaporator at 30 °C.

Step 8.

The concentrated pigments were dried in vacuo for 12 h.