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Document details



Pumpkin is believed to have health benefits due to its carotenoid content. Carotenoids are bioactive compounds with pharmaceutical potential. Carotenoids compound such as α -carotene and β -carotene react as provitamin A in human body, while lutein and zeaxanthin are two major components of the macular pigment of the retina. There are many extensive research has been done to study the benefit of these compounds to improve the nutritional value either for human consumption or commercialization purposes. The aim of this study is to identify the carotenoid content in pumpkin from five different localities in Malaysia. Carotenoid content in fruits and vegetables varies due to certain factors such as variety, level of maturity, climate or geographic site of production, part of the plant utilized, environment conditions during agricultural production, post-harvest handling, processing, and storage conditions. Based on these factors, measures could be taken to identify the individual carotenoid concentrations. In this study, pumpkins from Kelantan, Terengganu, Perak, Kedah and Melaka were analyzed. HPLC analysis was conducted to analyse the individual carotenoid in pumpkin. The individual carotenoids detected were α -carotene; which ranged from 1.26 mg/100g to 10.20 mg/100g, β -carotene; 29.16 mg/100g to 154.76 mg/100g and small amount of lutein were detected ranged from 0.22 mg/100g to 0.46 mg/100g. However lutein compound was not detected in pumpkin from Perak. The retinol equivalent was also calculated.



Cited by 3 documents

(2017) Sains Malaysiana

solvents

The effect of time, temperature and solid to solvent ratio on pumpkin

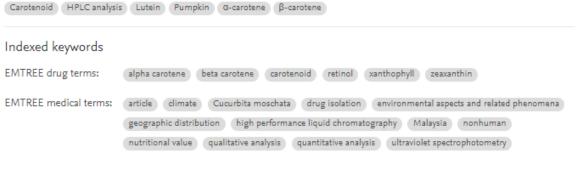
carotenoids extracted using food grade

Norshazila, S., Koy, C.N., Rashidi, O.

Angolan vegetable crops have unique

genotypes of potential value for future

Author keywords



Chemicals and CAS Registry Numbers:

alpha carotene, 7488-99-5; beta carotene, 7235-40-7; retinol, 68-26-8, 82445-97-4; xanthophyll, 127-40-2, 52842-48-5; zeaxanthin, 144-68-3

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Pharmaceutical Science

Related documents

Scheme of obtaining β-carotene standard from pumpkin (Cucurbita moschata) flesh

Norshazila, S., Irwandi, J., Othman,