

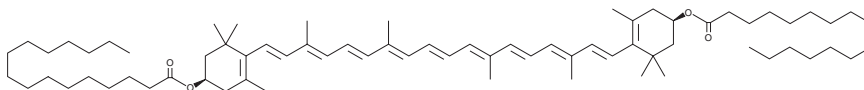
PRODUCT INFORMATION



Zeaxanthin Dipalmitate

Item No. 31703

CAS Registry No.: 144-67-2
Formal Name: (3R,3'R)- β,β -carotene-3,3'-diol,
3,3'-dihexadecanoate
Synonym: Physalien
MF: $C_{72}H_{116}O_4$
FW: 1,045.7
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Zeaxanthin dipalmitate is supplied as a crystalline solid. A stock solution may be made by dissolving the zeaxanthin dipalmitate in the solvent of choice, which should be purged with an inert gas. Zeaxanthin dipalmitate is slightly soluble in ethanol.

Description

Zeaxanthin dipalmitate is a carotenoid that has been found in *F. lycii* and has hepatoprotective activity.¹⁻⁴ It inhibits TGF- β -induced activation of hepatic stellate cells ($\text{IC}_{50} = 186.34 \mu\text{M}$).² Zeaxanthin (25 mg/kg) reduces hepatic collagen deposition and levels of thiobarbituric acid reactive substances (TBARS), as well as the activity of serum aspartate aminotransferase (AST) and alkaline phosphatase (ALP), in a rat model of hepatic fibrosis induced by bile duct ligation.³ It also decreases reactivated levels of hepatitis B virus (HBV) DNA and reduces hepatic steatosis, inflammation, and fibrosis in a model of non-alcoholic steatohepatitis (NASH) induced by a methionine- and choline-deficient diet in HBV transgenic mice.⁴

References

1. Peng, Y., Ma, C., Li, Y., *et al.* Quantification of zeaxanthin dipalmitate and total carotenoids in *Lycium* fruits (Fructus Lycii). *Plant Foods Hum. Nutr.* **60**(4), 161-164 (2005).
2. Zhang, G., Liu, Y., and Liu, P. Active components from sea buckthorn (*Hippophae rhamnoides* L.) regulate hepatic stellate cell activation and liver fibrogenesis. *J. Agric. Food Chem.* **66**(46), 12257-12264 (2018).
3. Kim, H.P., Lee, E.J., Kim, Y.C., *et al.* Zeaxanthin dipalmitate from *Lycium chinense* fruit reduces experimentally induced hepatic fibrosis in rats. *Biol. Pharm. Bull.* **25**(3), 390-392 (2002).
4. Li, J.-J., Gao, H., Lv, Y., *et al.* Zeaxanthin dipalmitate alleviates hepatic injury induced by superimposed chronic hepatitis B and non-alcoholic steatohepatitis in non-obese mice. *J. Asian Nat. Prod. Res.* **19**(9), 910-923 (2017).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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