

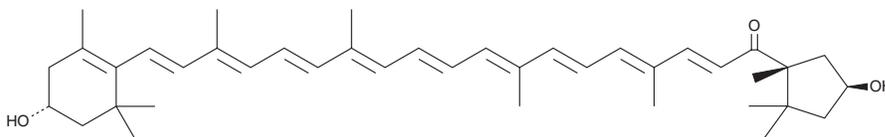
PRODUCT INFORMATION



Carotenoid Mixture

Item No. 18264

MF:	C ₄₀ H ₅₆ O ₃ (for Capsanthin)
FW:	584.9
UV/Vis.:	λ _{max} : 286, 452 nm
Supplied as:	A neat oil
Storage:	Room temperature
Stability:	≥4 years
Item Origin:	Plant/ <i>Capsicum annuum</i>



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

Laboratory Procedures

Carotenoid mixture is supplied as a neat oil. A stock solution may be made by dissolving the carotenoid mixture in the solvent of choice. Carotenoid mixture is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. Carotenoid mixture is miscible in these solvents.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of capsanthin can be prepared by directly dissolving the neat oil in aqueous buffers. Carotenoid mixture is soluble in PBS, pH 7.2. We do not recommend storing the aqueous solution for more than one day.

Description

Carotenoid mixture is a mixture of carotenoids that contains the antioxidative and anti-inflammatory carotenoid capsanthin and the antioxidative vitamin A precursor β-carotene (Item No. 16837), as well as additional carotenoids and carotenoid esters.¹⁻⁴

References

1. Kim, J.S., Lee, W.M., Rhee, H.C., *et al.* Red paprika (*Capsicum annuum* L.) and its main carotenoids, capsanthin and β-carotene, prevent hydrogen peroxide-induced inhibition of gap-junction intercellular communication. *Chem. Biol. Interact.* **254**, 146-155 (2016).
2. Narisawa, T., Fukaura, Y., Hasebe, M., *et al.* Prevention of N-methylnitrosourea-induced colon carcinogenesis in rats by oxygenated carotenoid capsanthin and capsanthin-rich paprika juice. *Proc. Soc. Exp. Biol. Med.* **224**(2), 116-122 (2000).
3. Horie, S., Okuda, C., Yamashita, T., *et al.* Purified canola lutein selectively inhibits specific isoforms of mammalian DNA polymerases and reduces inflammatory response. *Lipids* **45**(8), 713-721 (2010).
4. Negishi, H., Ueda, Y., and Azuma, M. Antioxidant fat-soluble vitamins and lipid peroxides in serum. *J. Clin. Biochem. Nutr.* **26**, 227-234 (1999).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/13/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM