

PRODUCT INFORMATION



Apocarotenal

Item No. 37231

CAS Registry No.: 1107-26-2
Formal Name: (2E,4E,6E,8E,10E,12E,14E,16E)-
2,6,11,15-tetramethyl-17-(2,6,6-
trimethyl-1-cyclohexen-1-yl)-
2,4,6,8,10,12,14,16-heptadecaoctenal

Synonyms: Food Orange 6,
trans- β -Apo-8'-carotenal

MF: C₃₀H₄₀O

FW: 416.6

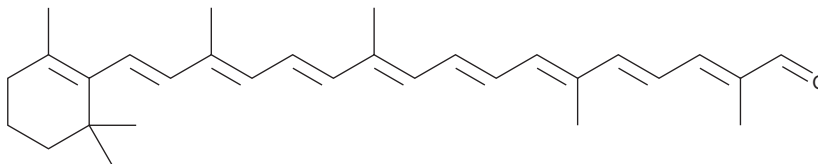
Purity: $\geq 95\%$

Supplied as: A 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

Apocarotenal is supplied as a solid. A stock solution may be made by dissolving the apocarotenal in the solvent of choice, which should be purged with an inert gas. Apocarotenal is soluble in DMSO. Apocarotenal is slightly soluble in chloroform and methanol.

Description

Apocarotenal is a carotenoid that has been found in *D. draco* and has genotoxic and antioxidant activities and is an active metabolite of the antioxidant terpenoid β -carotene (Item No. 16837).¹⁻³ It is formed from β -carotene by β -carotene 9',10'-oxygenase 2 (BCO2).¹ Apocarotenal (100 μ M) scavenges free radicals in a Trolox equivalent absorbance capacity (TEAC) assay.² It increases the percentage of micronucleated cells and the number of sister chromatid exchanges and chromosomal aberrations in primary rat hepatocytes when used at a concentration of 10 μ M.³ Formulations containing apocarotenal have been used as food additives and colorants.

References

1. Shete, V. and Quadro, L. Mammalian metabolism of β -carotene: Gaps in knowledge. *Nutrients* **5**(12), 4849-4868 (2013).
2. Mueller, L. and Boehm, V. Antioxidant activity of β -carotene compounds in different *in vitro* assays. *Molecules* **16**(2), 1055-1069 (2011).
3. Alija, A.J., Bresgen, N., Bojaxhi, E., et al. Cytotoxicity of β -carotene cleavage products and its prevention by antioxidants. *Acta. Biochim. Pol.* **57**(2), 217-221 (2010).

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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