

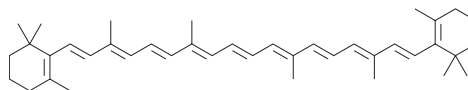
# PRODUCT INFORMATION



## β-Carotene

Item No. 16837

**CAS Registry No.:** 7235-40-7  
**Formal Name:** β,β-carotene  
**Synonyms:** Food Orange 5, KPMK, Lucarotin, NSC 62794, Provatene, Provitamin A, Solatene  
**MF:** C<sub>40</sub>H<sub>56</sub>  
**FW:** 536.9  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 278, 341, 446 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

β-Carotene is supplied as a crystalline solid. A stock solution may be made by dissolving the β-carotene in the solvent of choice, which should be purged with an inert gas. β-Carotene is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of β-carotene in these solvents is approximately 1 and 0.1 mg/ml, respectively.

β-Carotene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, β-carotene should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. β-Carotene has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

β-Carotene is a red/orange-colored fat-soluble terpenoid with antioxidant properties.<sup>1</sup> It can be enzymatically cleaved to produce vitamin A and retinoic acid. Vitamin A is important for vision and bone growth, while retinoic acid, through the retinoic acid receptor, plays an important role in cell differentiation.

### Reference

1. Negishi, H., Ueda, Y., and Azuma, M. Antioxidant fat-soluble vitamins and lipid peroxides in serum. *J. Clin. Biochem. Nutr.* **26(3)**, 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.

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