



LKT Laboratories, Inc.

## β-Carotene

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### Product Information

**Product ID** C0269

**CAS No.** 7235-40-7

**Chemical Name** β,β-Carotene

**Synonym** Carotaben, Provatene, Solatene

**Formula** C<sub>40</sub>H<sub>56</sub>

**Formula Wt.** 536.87

**Melting Point** 183 °C

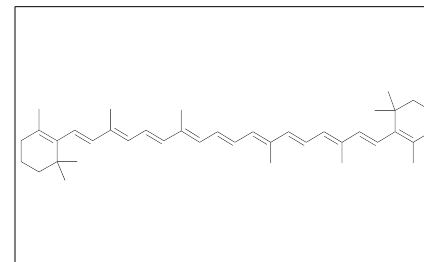
**Purity** ≥97%

**Solubility** Insoluble in water.  
Sparingly soluble in ethanol.  
Soluble in benzene or  
chloroform.

**Store Temp** -20 °C

**Ship Temp** Ambient

**Description** β-Carotene is a red-orange terpene pigment originally found in various plants and fruits; it is a prodrug for vitamin A. β-Carotene exhibits antioxidative, cytoprotective, anticancer, anti-inflammatory, anti-hyperlipidemic, and anti-obesity activities. β-Carotene is used in research models to quantify antioxidative activity. In bone marrow cells, β-carotene protects against radioactive isotope-induced DNA damage. In breast cancer cells, this compound induces cell cycle arrest and apoptosis, decreasing cellular viability. β-Carotene decreases total cholesterol, VLDL and LDL levels, suppresses expression of SREBP2 and LDL-R, and increases expression of PPARα in vivo. In other animal models, this compound decreases body fat and adipocyte size and suppresses TNF-α-induced inflammation.



**Bulk quantities available upon request**

Product ID	Size
C0269	1 g
C0269	5 g
C0269	25 g
C0269	50 g

**References** Abdel-Mageed WM, Bayoumi SA, Salama AA, et al. Antioxidant lipoxygenase inhibitors from the leaf extracts of *Simmondsia chinensis*. *Asian Pac J Trop Med*. 2014 Sep;7S1:S521-6. PMID: 25312177.

Berti AP, Düsman E, Mariucci RG, et al. Antimutagenic and radioprotective activities of beta-carotene against the biological effects of iodine-131 radiopharmaceutical in Wistar rats. *Genet Mol Res*. 2014 Mar 31;13(1):2248-58. PMID: 24737473.

Gloria NF, Soares N, Brand C, et al. Lycopene and beta-carotene induce cell-cycle arrest and apoptosis in human breast cancer cell lines. *Anticancer Res*. 2014 Mar;34(3):1377-86. PMID: 24596385.

Silva LS, de Miranda AM, de Brito Magalhães CL, et al. Diet supplementation with beta-carotene improves the serum lipid profile in rats fed a cholesterol-enriched diet. *J Physiol Biochem*. 2013 Dec;69(4):811-20. PMID: 23645541.

Di Tomo P, Canali R, Ciavardelli D, et al. β-Carotene and lycopene affect endothelial response to TNF-α reducing nitro-oxidative stress and interaction with monocytes. *Mol Nutr Food Res*. 2012 Feb;56(2):217-27. PMID: 22162208.

Amengual J, Gouranton E, van Helden YG, et al. Beta-carotene reduces body adiposity of mice via BCMO1. *PLoS One*. 2011;6(6):e20644. PMID: 21673813.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.