Creative Enzymes®

β-carotene 15,15'-dioxygenase

Cat. No. EXWM-0583

Lot. No. (See product label)

Introduction

Description	Requires Fe2+. The enzyme cleaves β-carotene symmetrically, producing two molecules of all-trans-retinal. Both atoms of the oxygen molecule are incorporated into the products. The enzyme can also process β-cryptoxanthin, 8'-apo-β-carotenal, 4'-apo-β-carotenal, α-carotene and γ-carotene in decreasing order. The presence of at least one unsubstituted β-ionone ring in a substrate greater than C30 is mandatory. A prokaryotic enzyme has been reported from the uncultured marine bacterium 66A03, where it is involved in the proteorhodopsin system, which uses retinal as its chromophore.
Synonyms	blh (gene name); BCO1 (gene name); BCDO (gene name); carotene dioxygenase; carotene 15,15'-dioxygenase; BCMO1 (misleading); β-carotene 15,15'-monooxygenase (incorrect)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.13.11.63
Reaction	β-carotene + O2 = 2 all-trans-retinal
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.