

Biotics Research Corporation Product Showcase

E-200 H γ TM

High Gamma Tocopherol



For Healthcare Professionals Only

New, from Biotics Research

Gamma Tocopherol (γ -Tocopherol) - The unique biological and chemical properties of the tocopherols have been correlated to their important roles in the intracellular defense against radical-mediated damage. It has been suggested that in response to a cellular inflammatory state an increase in intracellular γ -tocopherol may be indicative of the role it serves, as a unique component in minimizing cellular damage resulting from the production of endogenous nitrous oxide (NO). Studies have speculated that the "paradoxical increase in cellular tocopherol associated with the induction of NO synthesis may indicate either enhanced cellular transport/decreased export for tocopherols or recruitment of free tocopherol from tocopherol storage molecules."¹ Additionally, increased consumption of γ -tocopherol has been associated with a reduced relevance of prostate complications.²

Supplement Facts

Serving Size: 1 Softgel Capsule

	Amount Per Serving	% Daily Value
Vitamin E (as d-Alpha tocopherol)	200 IU	667%
d-Gamma tocopherol	200 mg	*
Other tocopherols (d-Delta, d-Beta tocopherol)	78 mg	*
Tocotrienols	2 mg	*

*Daily Value not established

Other Ingredients: Softgel capsule shell (gelatin, water and glycerin) and soybean oil.

This product contains soy.

Recommendation: One (1) softgel capsule each day as a dietary supplement or as otherwise recommended by your healthcare professional.

KEEP OUT OF REACH OF CHILDREN

Store in a cool, dry area.

Sealed with an imprinted safety seal for your protection.

NDC #55146-01015 Rev. 7/08

Product #: 1015 Contains: 120 Capsules

For additional information please contact us:

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Unlike α -tocopherol, γ -tocopherol has been shown to exhibit anti-inflammatory activity. Both γ -tocopherol, and its primary metabolite 2,7,8-trimethyl-2-(β -carboxyethyl)-6-hydroxychroman (γ -CEHC), were shown to inhibit the synthesis of prostaglandin E2 (PGE2) via inhibition of its catalyst cyclooxygenase-2 (COX2), providing evidence of γ -tocopherol's anti-inflammatory properties.^{3,4}

A subsequent study illustrated γ -tocopherol's effects on PGE2. A significant lowering of PGE2, along with reduced lipid peroxidation and LDH activity was observed at the site of inflammation, as compared to α -tocopherol. The method of activation of tocopherols on COX-2 has been demonstrated to be post-transcriptionally, which is different from the activity of quercetin, shown to affect both transcription and activity of COX-2.⁵ It is thus feasible to assume a complementary mechanism of these actions.

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2. Wright ME, Weinstein SJ, Lawson KA, Albanes D, Subar AF, Dixon LB, Mouw T, Schatzkin A, Leitzmann MF. Supplemental and dietary vitamin E intakes and risk of prostate cancer in a large prospective study. *Cancer Epidemiol Biomarkers Prev.* 2007 Jun;16(6):1128-35.
3. Jiang Q, Ames BN. γ -tocopherol, but not α -tocopherol, decreases proinflammatory eicosanoids and inflammation damage in rats. *FASEB J.* 2003 May;17(8):816-22.
4. Jiang Q, Elson-Schwab I, Courtemanche C, Ames BN. Gamma-tocopherol and its major metabolite, in contrast to alpha-tocopherol, inhibit cyclooxygenase activity in macrophages and epithelial cells. *Proc Natl Acad Sci U S A.* 2000 Oct 10;97(21):11494-9.
5. O'Leary KA, de pascual-Tereasa S, Needs PW, Bao YP, O'Brien NM, Williamson G. Effect of flavonoids and vitamin E on cyclooxygenase-2 (COX-2). *Mutat Res.* 2004 Jul 13;551(1-2):245-54.



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These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.