## EFA-Sirt Supreme®

Because Healthy Aging Requires Healthy Arteries and a Healthy Heart



Dr. Mark Houston, Associate Clinical Professor of Medicine at Vanderbilt Medical School and Director of Hypertension Institute and Vascular Biology in Nashville, in conjunction with Biotics Research Corporation, has developed EFA-Sirt Supreme<sup>®</sup>, has developed a unique Essential Fatty Acid supplement!

**EFA-Sirt Supreme**<sup>®</sup> supplies a unique, highly concentrated essential fatty acid blend, providing a extremely effective relative combination of EPA, DHA and GLA, with all natural mixed tocopherols, specially formulated to be high in  $\gamma$  (gamma)-Tocopherol.

## Why do your patients need EFA-Sirt Supreme®?

The unique composition of **EFA-Sirt Supreme®** provides a balance of key nutrients that current research has shown to support healthy cardiovascular function.

A large amount of supportive scientific research shows that the consumption of Eicosapentaenoic acid (EPA) and Docosahexaenoic acid (DHA) Omega-3 fatty acids may reduce the risk of coronary heart disease.

**Omega-3 fatty acids (FA)** have been shown to affect platelet aggregation, blood viscosity, plasma levels of fibrinogen, PF4 and beta-thromboglobulin and capillary flow. These effects are believed to be functions of membrane fluidity. Omega-3 fatty acids support healthy blood lipid profiles, normal healthy blood pressure, stimulate Nitric Oxide (NO) and support healthy, normal blood sugar and insulin levels. Omega-3 fatty acids help to suppress ACE, TGA beta, SREBP and function as PPAR agonists. Additionally, Omega-3 fatty acid supplementation increases FA oxidation, which research suggests helps to decrease adipose tissue and serves to improve endothelial function.

**EPA-derived eicosanoids** reduce the production of pro-inflammatory eicosanoids such as LT-B4, PAF, and cytokines such a TNF-a and IL-1. Evidence suggests that EPA must be incorporated into cell membrane phospholipids for its beneficial effects on eicosanoid metabolism to be realized.



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6801 Biotics Research Drive Rosenberg, TX 77471 biotics@bioticsresearch.com www.bioticsresearch.com

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

DHA is not only essential for neural function, it is also an important component of cell membranes and supports normal healthy blood pressure. DHA generally appears to improve cell membrane function via improved receptor function and signal transduction. DHA is converted by several mechanisms into docosatrienes and resolvins, which have anti-inflammatory properties. The activity may very well be due to the fatty acids effects modifying genetic expression, according to recent research.

Gamma linolenic acid (GLA), the good Omega-6 fatty acid, is elongated to DGLA, the biologically active form from which eicosanoids are derived. DGLA metabolites reduce the formation of the arachidonate-derived prostaglandins, leukotrienes, platelet-activating factors and supports normal healthy blood pressure. DGLA reduces aldosterone, sympathetic tone and RAAS activity. Low levels of DGLA are associated with increased cardiac risk.

Gamma Tocopherol ( $\gamma$ -Tocopherol) Humans derive significant benefit from  $\gamma$ -Tocopherol, a key component of the mixed tocopherols supplied by a healthy diet high in vegetable consumption.  $\gamma$ -Tocopherol has natriuretic activity, supports normal healthy glucose and insulin levels, and improves antioxidant defenses, serving as a component in minimizing cellular damage resulting from the production of radical oxygen species. Unlike a-Tocopherol,  $\gamma$ -Tocopherol and its primary metabolite g-CECH, have been shown to inhibit the synthesis of PGE2.

## **Sirtuins and EFAs**

"Sirtuins (SIRTs) deacetylate, activate and potentiate the activity of both mitochondrial and cytoplasmic acetyl CoA synthetases (ACES-1 and ACES-2). ACES is a key enzyme that produces acetyl CoA, the key molecule generated from the breakdown of carbohydrates, lipids and amino acids form acetate. EFA's and insulin also potentiate the activity of ACES and thus are additive or synergistic with SIRTs in these metabolic pathways. The EFAs, SIRTs and insulin will therefore increase FA and AA synthesis, cell membrane and receptor function, increase gluconeogenesis, simulate caloric restriction and increase life expectancy in experimental animals."

- Dr. Mark Houston MD, MS, FACP, FAHA

Servings Per Container: 30	Amount Per Serving	% Daily Value
Calories (energy)	70	
Total Fat	7 g	9%†
Saturated Fat (not more than)	1 g	5%†
Total Carbohydrate	<1 g	<1%†
Protein	2 g	
Vitamin E	50 mg	333%
Natural Mixed Tocopherols including d-gamma tocopherols, d-delta tocopherol d-beta tocopherol, and d-alpha tocopherol	360 mg	*
GLA (Gamma Linolenic Acid)	750 mg	*
Total EPA and DHA	2 g	*
EPA (Eicosapentaenoic Acid)	1,145 mg	*
DHA (Docosahexaenoic Acid)	855 mg	*

Ingredients: Borage oil, capsule shell (gelatin, glycerin, purified water, carob), fish oil (anchovy) and natural mixed tocopherols (soy).

Contains ingredients derived from Soy and Anchovy.

This product is gluten and dairy free.

**RECOMMENDATION:** Six (6) softgel capsules each day as a dietary supplement or as otherwise directed by a healthcare professional.

KEEP OUT OF REACH OF CHILDREN Store in a cool, dy area. Sealed with an imprinted safety seal for your protection. Product # 1412 Rev. 10/18

Biotics Research recommends these product adjuncts: VasculoSirt®, ResveraSirt-HP®, Lipid-Sirt®, Niacin 100™ and Red Yeast Rice



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