# QÜELL® FISH OIL Ultra SPM

Specialized Pro-Resolving Mediators for Immune Homeostasis and Cardiovascular Health<sup>‡</sup>

## **DESCRIPTION**

QÜELL® Fish Oil Ultra SPM contains a unique blend of marine oils concentrated for specialized pro-resolving mediators (SPMs) and docosapentaenoic acid (DPA). Each softgel provides 560 mg omega-3 fatty acids and 300 mcg SPMs to support resolution of the immune response and restoration of homeostasis. The omega-3 fatty acid, DPA, further supports endogenous SPM production and cardiovascular health. ‡

QÜELL® Fish Oil is unique among other fish oils for its supercritical CO<sub>2</sub> extraction method and purity. Supercritical CO<sub>2</sub> is an advanced technology that protects fish oils from oxidation. In contrast to molecular distillation, this extraction method uses less heat and no chemical solvents, reducing the formation of unwanted isomers and yielding a "cleaner" oil. As with all QÜELL® Fish Oils, this formula contains no chemical preservatives, solvents, or undesirable compounds and is tested for heavy metals and other potential contaminants to ensure purity of every finished product.

## **INDICATIONS**

- Supports immune homeostasis<sup>‡</sup>
- Supports the natural resolution of the inflammatory process<sup>‡\*\*</sup>
- Supports cardiovascular health<sup>‡</sup>

#### **FUNCTIONS AND MECHANISM OF ACTION**

SPMs are a group of compounds derived from marine oils that play a critical role in resolution of the inflammatory process, including immune cell recruitment, cellular function, and cytokine production. Not all inflammation is associated with disease states. The body's inflammatory response to life's occasional, normal stressors is important for optimal health. The body produces SPMs from fish oil; however, this multi-step process is inefficient and can be compromised. In two studies involving healthy subjects, supplementation with 4-17 grams of standard fish oil daily did not produce significant increases in SPMs.¹ Different families of resolvins are derived from EPA, DHA, DPA, and AA (arachidonic acid). Each mediator exerts unique biological actions, including the regulation of platelet activation (resolvin E1), support for immune function (protectins), and maintenance of tissue health (maresins). Research has focused primarily on the E-series resolvins (from the EPA metabolite 18-HEPE) along with the protectins, maresins, and D-series resolvins (derived the DHA metabolite, 17-HDHA).² ‡

The omega-3 fatty acid DPA (docosapentaenoic acid) is a precursor for T-series resolvins and has long been favorably associated with vascular health. In a pool of 19 studies and over 45,000 individuals, DPA was the long-chain essential fatty acid most strongly associated with cardiovascular health.<sup>3</sup> Mechanistic examinations suggest that 15-lipoxygenase (15-LOX), an enzyme that converts DHA and EPA to SPMs, may be critical for SPM production. While levels of EPA and DHA were comparable in immune cells isolated from subjects supplemented with fish oil, cells from obese subjects had compromised levels of 15-LOX and SPM production.<sup>4</sup> Another study indicated that subjects with metabolic syndrome have lower levels of SPM precursors compared to healthy subjects after fish oil supplementation.<sup>5</sup> In healthy volunteers, supplementation of fish oil with SPM increased immune cell efficacy, as well as decreased expression of adhesion molecules and platelet activation.<sup>6</sup> ‡

#### FORMULA (#202691)

Serving Size 1 Softgel:

Calories	1	1(	O
Total Fat	.1	(	a

Cholesterol	5 mg
Supercritical CO <sub>2</sub> Marine Oil Concentrate	
Providing:	
Total omega-3 fatty acids	560 mg
EPA (eicosapentaenoic acid)	225 mg
DHA (docosahexaenoic acid)	200 mg
DPA (docosapentaenoic acid)	45 mg
Specialized Pro-Resolving Mediators (SPMs)	300 mcg
(including 18-hydroxyeicosapentaenoic acid (18-H	EPE),
17-hydroxydocosahexaenoic acid (17-HDHA), and	d 14-hydroxydocosahexaenoic acid (14-HDHA))

Other ingredients: gelatin capsule (gelatin, glycerin, purified water), natural lemon flavor, natural mixed tocopherols

Contains: Fish & Marine Oil (anchovy, squid, sardine, herring, mackerel)

Gluten-free, Non-GMO

#### SUGGESTED USE

Adults take 1 softgel daily with food or as directed by a health professional.

## **WARNING**

If you are pregnant, nursing, have any health condition or taking any medication, consult your health professional before using this product.

Keep out of reach of children.

### **STORAGE**

Store in a cool, dry place, away from direct light. Use only if safety seal is intact.

#### **REFERENCES**

- 1. Skarke C, et al. *J Lipid Res.* 2015, Sep;56(9):1808-20
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- 3. Del Gobbo LC, et al. JAMA Intern Med. 2016, 176: 1155-66.
- 4. López-Vicario C, et al. FASEB J. 2019 Jun;33(6):7072-83.
- 5. Barden AE, et al. Am J Clin Nutr. 2015 Dec;102(6):1357-64.
- 6. Souza PR, et al. Circ Res. 2020 Jan 3;126(1):75-90.

## For more information on QÜELL® FISH OIL Ultra SPM visit douglaslabs.com

<sup>‡</sup>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.

\*\*Not all inflammation is associated with disease states. The body's inflammation response to life's occasional, normal stressors is important for optimal health.

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