

# OmegaGenics® SPM Active

## Specialized Pro-Resolving Mediators to Support a Healthy Immune Response\*

The immune system is designed to defend the body against everyday challenges.<sup>1</sup> In healthy individuals, the body's natural immune response is employed to resolve these countless challenges. However, if left unresolved, constant activation of the immune response may lead to potential long-term health concerns. For those individuals, additional nutritional support may be beneficial to promote the resolution of the immune response.

The immune response has two distinct phases: 1) initiation phase and 2) resolution phase. It was once thought that the resolution of the immune response was a passive process.<sup>2</sup> In contrast, recent groundbreaking research has identified a structured and orderly system to actively resolve the immune response. During the resolution phase, specialized pro-resolving mediators (SPMs) are produced at the affected tissue site and function as "resolution agonists," orchestrating the resolution-related activities and facilitating the return to the previous healthy condition.<sup>2-4</sup>

If an individual is unable to produce desirable levels of SPMs—due to lifestyle behaviors, dietary choices, or health status—in response to an immune challenge, the resolution of the immune response can be impacted.<sup>3,5</sup> Since SPMs have been found to be critical for the resolution, SPM supplementation represents a more targeted nutritional approach to support the resolution of the immune response.<sup>3</sup>

OmegaGenics SPM Active is a revolutionary new nutritional product developed through advanced fractionation technology featuring standardized levels of SPMs (18-HEPE and 17-HDHA) found in fish oil. It is specially designed for individuals who may benefit from direct supplementation of SPMs to support the resolution of the immune response.\*

### Why OmegaGenics SPM Active?

- A breakthrough in tissue health and immune response support\*
- Active IR is a patent pending technology exclusive to Metagenics that establishes a collective set of proprietary processes designed to isolate, measure, and verify the active SPMs 18-HEPE and 17-HDHA
- Supports healthy immune cell (i.e., macrophage) resolution-related activities\*



**Form:** 60 Softgels

**Serving size:** 2 Softgels

Calories	5
Calories from Fat	5
Total Fat	0.5 g
Cholesterol	<5 mg
Fractionated Lipid Concentrate	250 mg
SPM content standardized to	
18-hydroxy-eicosapentaenoic acid (18-HEPE) and	
17-hydroxy-docosahexaenoic acid (17-HDHA)	

**Ingredients:** Concentrated fish oil [anchovy and sardine oil, and mixed tocopherols (antioxidant)], softgel shell (gelatin, glycerin, water, pectin, and sorbitol), and lemon oil. **Contains: Fish (anchovy and sardine).**

**Directions:** Take two softgels once daily or as directed by your healthcare practitioner.

**This product is gluten free.**

**Caution:** If pregnant, nursing, or taking nutritional supplements or medications, consult your healthcare practitioner before use. Keep out of the reach of children.

**Storage:** Keep tightly closed in a cool, dry place.

**Do not use if safety seal is missing or broken.**

\* 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.

## The Immune Response

An unresolved immune response represents an imbalance in the initiation phase and the resolution phase (Figure 1). Addressing this imbalance through supplementation with SPMs represents a novel way to directly support the resolution of an immune response.\*

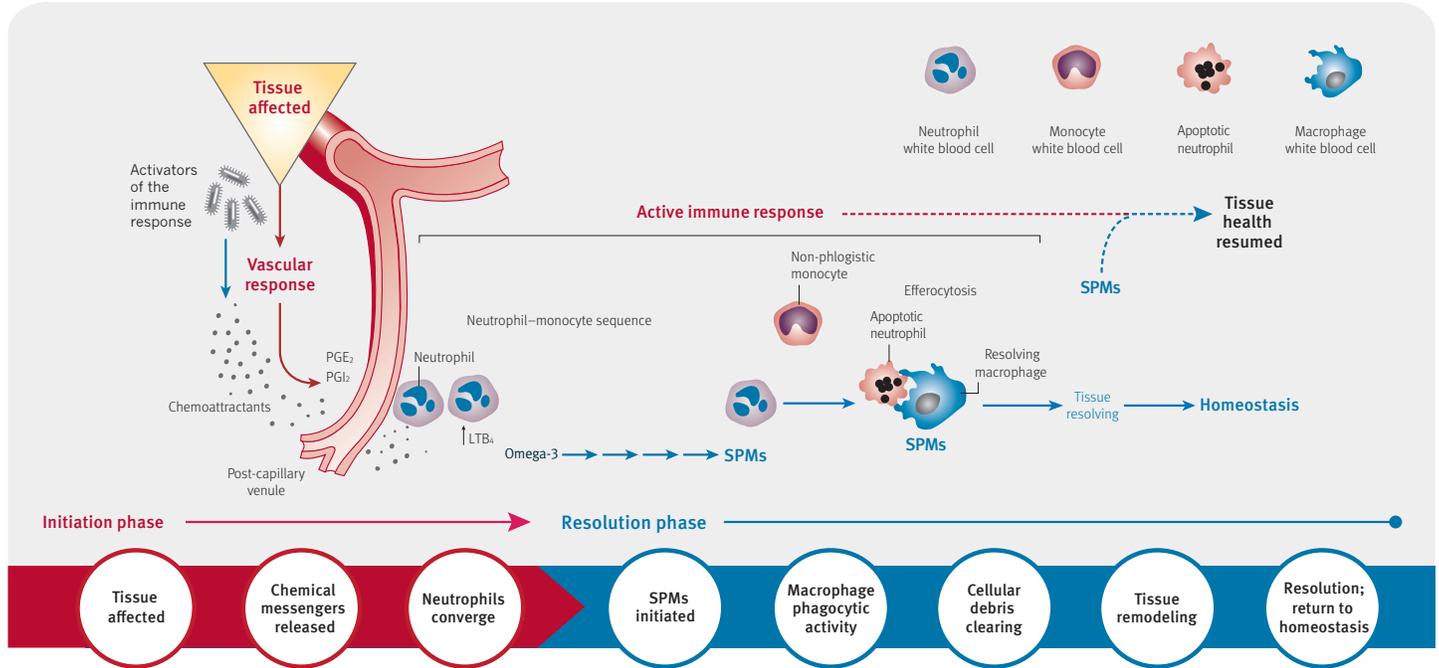


Figure 1. Adapted from: 1. Serhan CN. *Nature*. 2014;510:92-101. 2. Serhan CN, et al. *Semin Immunol*. 2015;27:200-215. 3. Lopez-Vicario C, et al. *Eur J Pharmacol*. 2015; May 15 [Epub ahead of print]

## Clinical Testing of Pro-Resolving Activity of SPM Supplementation

In a study conducted at the Appalachian State University Human Performance Lab, women (n=10) received SPM Active. The study found that the SPM supplementation resulted in a 3-4 fold increase in phagocytic activity within 4 hours of consumption, reflecting a key mechanism of action of SPMs, i.e. the promotion of resolution of the immune response through increased phagocytic activities by pro-resolving monocytes/macrophages<sup>6</sup> (Figure 2).\*

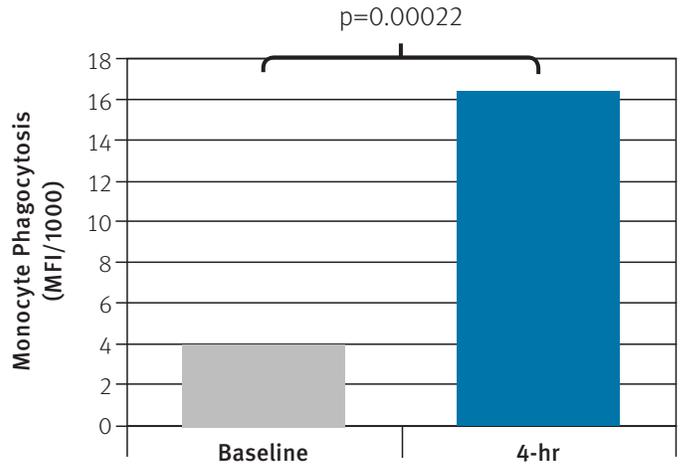


Figure 2. Supplementation with SPMs increases phagocytic activity of immune cells in humans. Subjects received the SPM supplement containing 500 mg of fractionated lipid concentrate (SPM content standardized to 18-HEPE and 17-HDHA). Subjects' immune cells were isolated from their blood samples collected at baseline and at 4 hours post-consumption. Cells were exposed to an immune challenge, and the responding phagocytic activity in these cells was measured.\*

### References:

- Kumar V, Abbas AK, Aster A. Chapter 4. Diseases of the Immune System. *Robbins Basic Pathology*. 9th ed: Saunders; 2012.
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- Spite M, Claria J, Serhan CN. Resolvins, specialized proresolving lipid mediators, and their potential roles in metabolic diseases. *Cell Metab*. 2014;19(1):21-36.
- Recchiuti A. Immunoresolving lipid mediators and resolution of inflammation in aging. *J Gerontol Geriatr Res*. 2014;3:151.
- Claria J, Nguyen BT, Madenci AL, Ozaki CK, Serhan CN. Diversity of lipid mediators in human adipose tissue depots. *Am J Physiol Cell Physiol*. 2013;304(12):C1141-1149.
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