K53 Brain-E™ DHA

DHA with phosphatidylcholine and Sesame oil

Provides a high-quality source of essential fatty acids to support healthy brain function

**BENEFITS OF PRODUCT**
- Provides high-concentration of DHA to EPA (14:1) to support healthy brain function
- Provides rich sources of phosphatidylcholine to support neuron and brain structure
- Provides rich sources of sesamin and sesamolin to support healthy microglia balance

**USE OF PRODUCT**
This product is formulated to provide the essential fatty acids the brain requires for membrane fluidity, synaptogenesis, neuronal structural integrity, dendritic growth, and healthy microglia. This product can be used by all ages and is especially useful for those who have difficulty digesting supplements, such as children and senior citizens. This product may be useful as a nutritional support for learning, memory, and brain health.

**OTHER PRODUCTS TO CONSIDER**
Other formulas can be used in conjunction with Brain-E™ DHA (K53) to support healthy neuronal function. Neuro-PTX® (K47) provides nutrients to support neuronal mitochondria activity. NeuroFlam® (K46) provides flavonoids that have demonstrated support of microglia balance. NeuroO2® (K45) provides natural compounds that support circulation to blood vessels in the brain.

**KEY INGREDIENTS**

**RESEARCH COMMENTARY**
The research information presented here should not be construed as claims regarding performance of this product.

**DOCOSAHEXAENOIC ACID** (DHA) Essential fatty acids have always been known to support brain health, but recent research has identified that it is the docosahexaenoic acid (DHA) component rather than the EPA component that most serves the brain. DHA is one of the major building blocks of the brain and is an essential nutrient for brain health and neuronal function. DHA plays roles in improving the fluidity of neuronal cell membranes, supporting neuronal dendrite outgrowths, improving the ability to release neurotransmitters, and enhancing neuronal cell signaling. DHA intake has demonstrated the ability to boost brain function, improve quality of life, and reduce the incidence of neurodegenerative conditions. Dietary DHA consumption has exhibited the ability to improve both short-term and long-term memory. In summary, DHA is used to enhance cell fluidity, neuronal signaling, and neuronal dendrite growth, enhance brain function, reduce inflammation, and decrease the incidence of neurodegenerative conditions.

**Supplement Facts**

<table>
<thead>
<tr>
<th>Serving size</th>
<th>2.45 ml</th>
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</thead>
<tbody>
<tr>
<td>Servings per container</td>
<td>48</td>
</tr>
<tr>
<td><strong>Amount Per Serving</strong></td>
<td><strong>% Daily Value</strong></td>
</tr>
<tr>
<td>Calories</td>
<td>19</td>
</tr>
<tr>
<td>Calories from fat</td>
<td>18</td>
</tr>
<tr>
<td>Total Fat</td>
<td>2.0 g</td>
</tr>
<tr>
<td>Polyunsaturated fat</td>
<td>1.7 g</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>171 IU</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>17 IU</td>
</tr>
<tr>
<td>DHA (Docosahexaenoic Acid)</td>
<td>1200 mg</td>
</tr>
<tr>
<td>EPA (Eicosapentaenoic Acid)</td>
<td>85 mg</td>
</tr>
<tr>
<td>Phosphatidylcholine</td>
<td>60 mg</td>
</tr>
<tr>
<td>Sesame oil</td>
<td>200 mg</td>
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</tbody>
</table>

†Daily Values are based on a 2,000 calorie diet. *Daily Value not established.

**Other ingredients:** Omega-3 fish oil, lecithin (derived from soy), natural flavors, mixed tocopherols, Lo Han® Fruit extract.

**DIRECTIONS**
Take 2.45 ml (approximately 2 1/2 full droppers) once a day, preferably with meals, or as directed by your healthcare practitioner.

**SESAMIN** and **SESAMOLIN** are antioxidants found in sesame seed oil and have exhibited properties to protect neurons and modulate microglia neuroinflammatory properties. Sesamin and sesamolin have the ability to attenuate excess generation of nitric oxide by lipopolysaccharide-stimulated microglia and to reduce infarct size by approximately 50 percent when compared to young, healthy controls.

This product is not intended for use as a replacement for medications prescribed by a medical doctor. It is intended for nutritional purposes only. Statements in this flyer have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Also available in Cherry flavor (K55) & Banana and Cinnamon flavor (K65)

Available in 4 fl. oz. (118 ml) glass bottle
with the control group in a cerebral artery occlusion study.\textsuperscript{13} They have shown the ability to protect BV-2 microglia from hypoxia-induced cell death. These antioxidants dose-dependently reduced hypoxia-induced microglia reactive oxygen species production.\textsuperscript{14} Sesamin and sesamolin have also demonstrated protective effects on hypoxic neuronal and PC12 cells.\textsuperscript{15} Additionally, they inhibited lipopolysaccharide-induced microglia cytokine production by suppression of p38 mitogen-activated protein kinase and nuclear factor-kB.\textsuperscript{16} Sesamin also enhances hepatic detoxification of chemicals,\textsuperscript{17} reduces the incidence of chemically induced tumors,\textsuperscript{18} demonstrates anti-hypertensive properties,\textsuperscript{19} and provides anti-inflammatory effects\textsuperscript{20} and anti-allergic effects.\textsuperscript{21}

**REFERENCE INFO**


