



## HOKI OIL

Macruronus novaezelandiae (Hoki) is a fish endemic to NZ and Australian waters and is from what is considered to be on well managed stocks. The oil itself is a by-product of the food industry. The Liver and the Stick can be processed to yield a valuable oil that is both high in the Omega 3 fatty acids: EPA (Eicosapentaenoic Acid) and DHA (Docosahexaenoic Acid) and low in environmental pollutants and toxins and also low in rancidity markers (Peroxide value, Anisidine, heavy metal, pesticides).

The Fish Oil is produced in New Zealand in the only fish oil production facility in the country.

EPA and DHA are considered essential for health, and more studies are being published daily in both human and animal studies. There is an overwhelming body of evidence suggesting that consumption of Omega 3 fatty acids is not just healthy, but now considered vital for a range of health conditions – and animals are no exception. Omega 3 fatty acids are often called “Essential Fatty Acids (EFAs)” because the body does not make them and the oils need to be sourced from the diet.

The potential therapeutic benefits of dietary supplementation with omega-3 fatty acids (eicosapentaenoic acid) and the ratio of omega-3 to omega-6 fatty acids (arachidonic acid), which are found primarily in fish oils including Hoki, has led to great interest in the functional foods arena. Interest in these fatty acids was first raised following the observation that Inuit people who normally have a diet high in fish, also have a low incidence of heart disease<sup>1</sup>. Since then, investigations into the effects of omega-3 and omega-6 fatty acids on immune function, eicosanoid production, inflammatory responses, and lipid peroxidation have been carried out in a number of species including dogs<sup>2-6</sup>, rats<sup>7</sup>, monkeys<sup>8</sup> and humans<sup>9,10</sup>.

In some studies in dogs, supplementation with omega-3: omega-6 fatty acids have been shown to induce conflicting results. Some studies have shown enhancement of immune responses such as T and B cell mitogenic responses<sup>6</sup> whereas in others suppression of cell-mediated immune responses were reported<sup>5</sup>. The reasons for these differences are unknown, but may be related to breed or the specific ratio of omega-3: omega-6 fatty acids used. The little research which has investigated the immune effects of dietary supplementation with omega-3 and omega-6 fatty acids in cats has shown that fish oil supplementation can reduce skin inflammatory responses<sup>11</sup>.

<b>Dose</b>	Newflands Hoki Oil delivers 2mL per pump. Each pump delivers DHA 210mg and EPA 124mg.			
	<b>Weight</b>	<b>Pumps</b>	<b>EPA</b>	<b>DHA</b>
	<5kg	1	124mg	210mg
	5-10kg	2	248mg	420mg
	10-20kg	3	372mg	630mg
	>20kg	4	496mg	840mg
<b>Indications</b>	Hoki Oil is indicated for: <ul style="list-style-type: none"> <li>• Arthritis</li> <li>• Inflammatory diseases,</li> <li>• Dermatological problems,</li> <li>• neurological problems,</li> <li>• ocular problems</li> </ul>			
<b>Contraindications:</b>	Dogs receiving warfarin or similar ‘blood thinning’ drugs should be monitored and drug dose adjusted when starting or stopping Newflands Hoki Oil Products.			
<b>Side-effects:</b>	Provided the recommended dosage is not exceeded, there should be no adverse effects			
<b>Safety:</b>	Omega 3 fatty acids have a wide safety range. According to Massey University: <i>The current safe upper limit for EPA + DHA is 0.37g per kg BW<sup>0.75</sup> (NRC, 2006).</i>			
<b>Storage:</b>	This product is best stored at room temperature, below 30°C.  Refrigeration may cause precipitation of stearins. These will disappear once the product is brought to room temperature. This is normal for unwinterised oil products and not a fault.			
<b>Ingredients</b>	Macruronus novaezelandiae (Hoki) refined Hoki oil, preserved with mixed tocopherols, sourced from certified GM (genetically modified) free soya beans.			

## References:

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