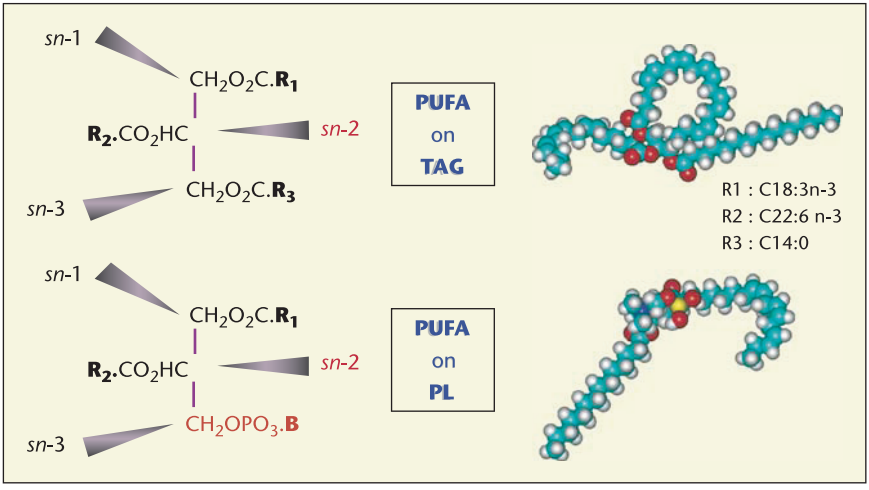
VECTOMEGA®: Carbon Positioning for Enhanced Bioabsorption and Stability

Natural oils found in fresh salmon have a non-random carbon distribution of Omega-3 fatty acids on the triglyceride (TAG) form of the molecule. The EPA and DHA found in fresh salmon oil are predominantly in the sn-2 (mid) position. When fish oil is processed and refined, this results in a random redistribution of fatty acid, generally increasing the amount of unsaturated FA's at the sn-1/sn-3 (terminal) positions of the carbon chain. However, the enzyme vectorization of VECTOMEGA has no effect on the oil's natural sn-2 carbon position. This is significant because when DHA or EPA fatty acids are attached to the glycerol (TAG) mid position (sn-2) is more stable and less prone to oxidation than those attached to the terminal position sn-1 or sn-3.



Omega-3 oil's sn-2 position is also significant in regards to bioabsorption. Clinical studies have shown that the composition and position of fatty acids in TAGs affect both bioavailability and digestibility of fats and oils in both infants and adults. VECTOMEGA'S phospholipid vectorization has been clinically demonstrated to have superior bioavailability compared to other fish oils. Research has shown that because the marine phospholipids contain DHA and EPA in a specific location on the carbon chain (Sn-2 on the glycerol-TAG), VECTOMEGA is 50 times more absorbable via cell membranes.