

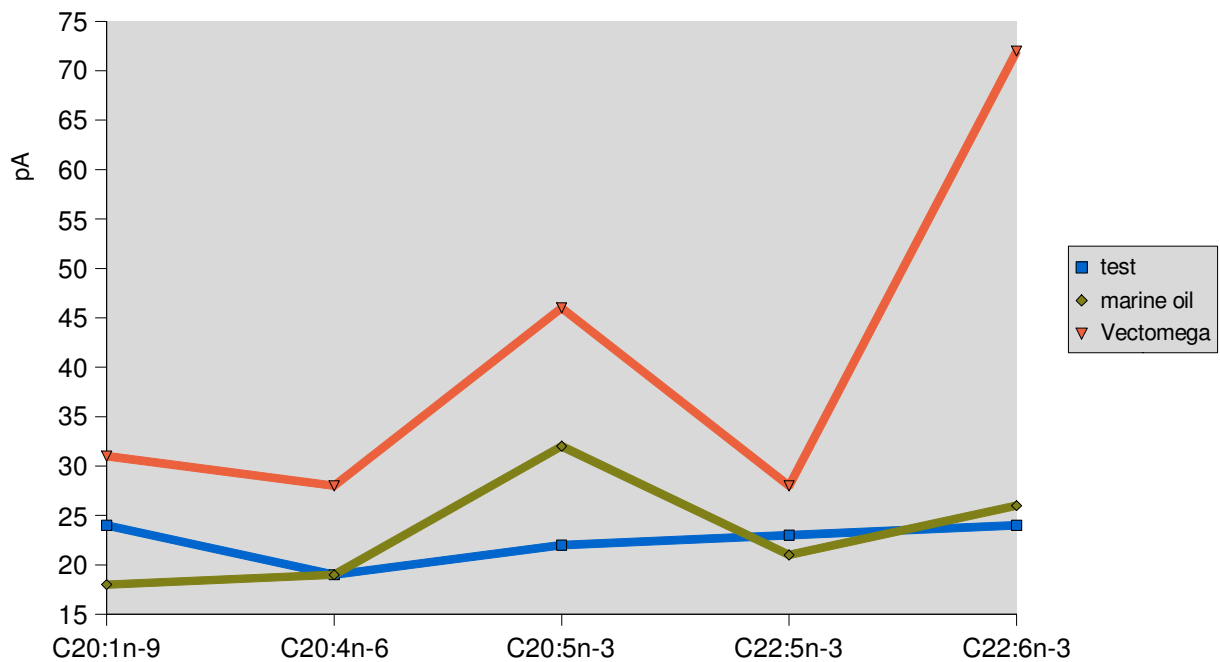
Comparative study of PUFA incorporation in Caco-2 cells membrane

Scientifically Proven Effectiveness

An *in vitro* study assessed the metabolism of **Vectomega**[®] compared with a referent fish oil (30% omega 3 PUFA, 18% of which is EPA and 12% DHA). A digestion phase reproduced human conditions with successive action of salivary enzymes, gastric acid and pepsin, bile acids and salts, and pancreatic enzymes, providing a digestate.

From the incorporation phase, we learned about the types and quantities of fatty acids integrated into the cellular membrane group (wall, mitochondria, reticulum). This study was carried out on enterocyte redifferentiated Caco-2 cells.

Results:



Comments:

- **VECTOMEGA**[®] has a high integration superiority, especially for DHA (x 10) and for EPA (x2).
- Its composition and bioavailability increase the cellular status of the whole PUFA-Lc group ($\omega 3$, $\omega 6$, $\omega 9$)
- EPA transported by **VECTOMEGA**[®] is partially transformed to DPA by enterocyte (metabolic vitality)

- **VECTOMEGA®** is a PL-carrier.
- A **major incorporation of DHA** alongside arachidonic acid (AA) in the right proportion gives hope of a very strong restructuring impact. After crossing the enterocyte, **Vectomega®**'s phospholipids are found at the basal pole where they circulate
- The PL are found at the basal pole of the enteric cells, then in the lymphatic system.

(1) Yee.S. In vitro permeability across Caco-2 cells can predict in vivo absorption in man. Pharm Res . 1997 Jun; 14(6): 763-6