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### Bruheim et al.

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### (54) **BIOEFFECTIVE KRILL OIL COMPOSITIONS**

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#### (57)ABSTRACT

This invention discloses new krill oil compositions characterized by having high amounts of phospholipids, astaxanthin esters and/or omega-3 contents. The krill oils are obtained from krill meal using supercritical fluid extraction in a two stage process. Stage 1 removes the neutral lipid by extracting with neat supercritical CO2 or CO2 plus approximately 5% of a co-solvent. Stage 2 extracts the actual krill oils by using supercritical  $CO_2$  in combination with approximately 20% ethanol. The krill oil materials obtained are compared with commercially available krill oil and found to be more bioeffective in a number of areas such as anti-inflammation, antioxidant effects, improving insulin resistances and improving blood lipid profile.

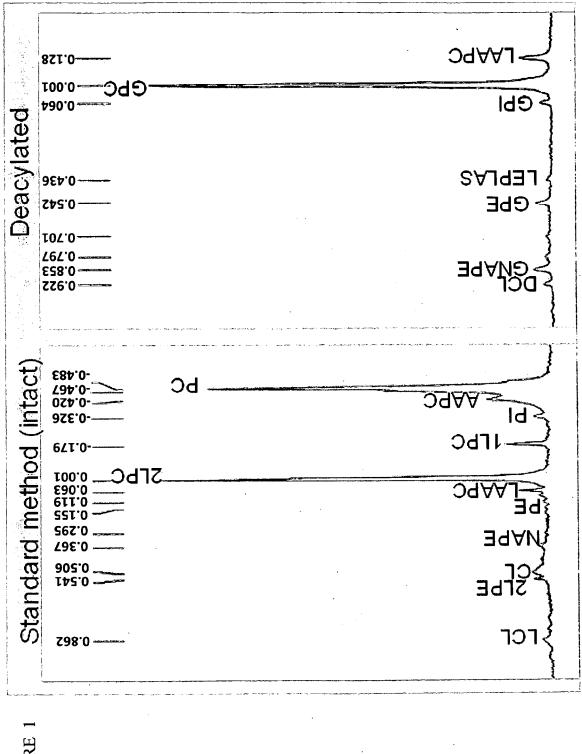


FIGURE 1

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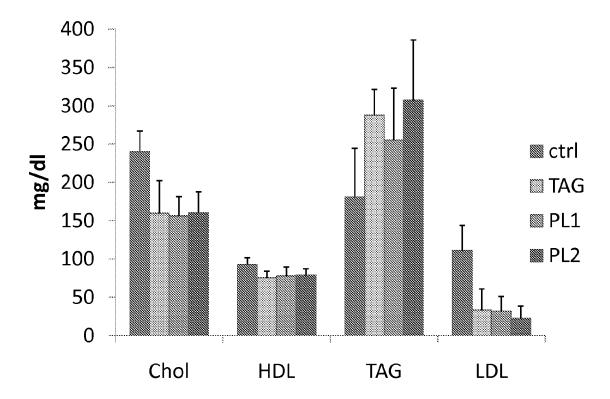
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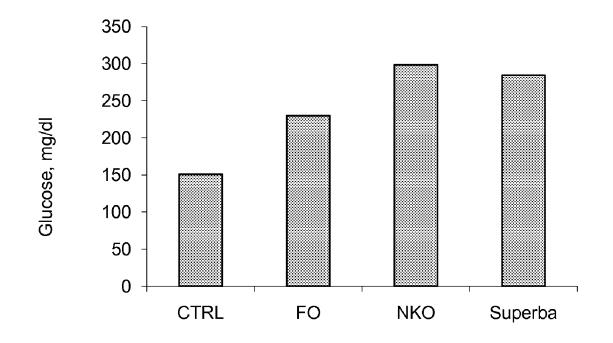
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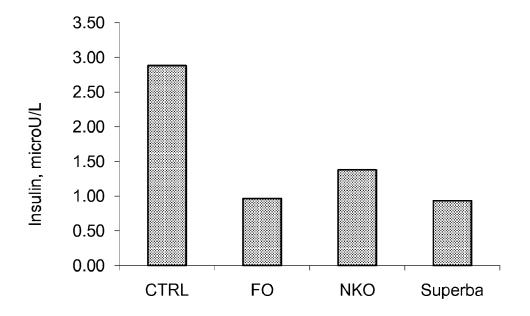




### FIGURE 3



### FIGURE 4



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