

Using Gas Chromatography to Detect Eicosapentaenoic and Docosahexaenoic Acids in Antarctic Krill

이유리, 당보곤, 노경호*
인하대학교
(rowkho@inha.ac.kr*)

The acid-catalyzed esterification successfully transforms eicosapentaenoic acid and docosahexaenoic acid in Antarctic krill to methyl esters, then detected by gas chromatograph. Three of the key factors on esterification of eicosapentaenoic acid and docosahexaenoic acid in Antarctic krill are reaction time, the amount of catalyst and reaction temperature. The results obtained in this research suggest that eicosapentaenoic acid and docosahexaenoic acid mixture solution react completely with the sulfate acid - methanol (moles are more than eicosapentaenoic acid and docosahexaenoic acid). The optimization conditions of eicosapentaenoic acid and docosahexaenoic acid esterification was applied to the esterification of them in Antarctic krill samples. The content of eicosapentaenoic acid and docosahexaenoic acid in dry samples were higher than fresh samples.