

Analysis of parabens in protein based food supplements

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Abstract

Parabens have been employed for about a century as preservatives in foodstuff, cosmetics and pharmaceuticals, beverage. In vitro studies indicate that PBs induce the growth of MCF-7 human breast cancer cells and influence the expression of estrogen dependent genes. In this respect and although parabens were generally considered harmless to human beings for a long time, several concerns have been raised over the past twenty years about parabens safety with emphasis given on their endocrine disrupting potential. The protein-containing food supplements within the over the counter (OTC) drug class content has been scanned through its content and a paraben analysis of the supplement was performed. In the study, 2 pieces of energizing gel, 9 pieces of protein or amino acid-containing supplement, and 7 pieces of supplements containing L-carnitine which totals to 18 products have been purchased from 16 different companies. In the analysis, the LCMS-IT-TOF device has been used. The peaks which were observed in a High-Resolution Mass spectrum has been scanned within a range of 10 ppm molecular mass from the drugbankdatabase and eventually, a qualitative analysis of related compounds were performed. As a result of the analysis, no parabens were detected in any products. However, in those products, which are used by a wide range of age group, was noted to have a high level of carbohydrate content (especially fructose and sucrose).

Biography

Ulviye Acar Çevik has graduated with his Master's degree in 2015. Currently, she is pursuing PhD and is in the second semester of PhD.

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