Research article

Method development for identification of the chicken, beef and pork processed food

Tunku Syed Iskandar Syed Azhar, Lay-Harn Gam^{*}

School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia.

Key words: Proteins extraction, SDS-PAGE, Biomarkers, Identification of meat source.

*Corresponding Author: Lay-Harn Gam, School of Pharmaceutical Sciences, Universiti Sains Malaysia, 11800 USM, Penang, Malaysia.

Abstract

Food adulteration is an addition of impure ingredients to food that cannot be seen by the naked eye unless it is tested and investigated thoroughly. In the market, people are buying canned and processed meat for consumption but little did they know the content. In this study, we examined the protein profile of canned meat by using SDS-PAGE method that can show the differences of protein profile of three types of canned meat and processed meat that is chicken (Gallus gallus), pork (Sus scrofa) and beef (Bos taurus). A simple approach by extracting protein from meat product and followed by protein purification and SDS-PAGE protein profiling of the food's protein as the meat product was seasoned and therefore salt composition in the food interfered the SDS-PAGE separation. Using this newly developed method, we were able to identify the origin of meats in food.

