

ABSTRACT

The high consumption of beef in Indonesia with unstable prices makes the falsification of meat through the mixing of beef with pork in processed products such as sausages. The purpose of this study was to determine the differences in protein profiles of beef, pork and other dairy products consisting of reference sausages and commercial sausages.

The methods in this study was laboratory experimental using SDS-PAGE (Sodium Dodecyl Sulphate Polyacrylamide Gel Electrophoresis). The data were analyzed after the coloring process was done on the gel, then the gel was observed visually and analyzed by descriptive analysis. Data were calculated by linear regression to determine molecular weight. In addition, we have measured protein samples by biuret method using UV-Vis spectrophotometer.

The results of this study showed differences in protein bands between beef, pork and other dairy products. There is a specific protein band of troponin T with molecular weight is 100.97 kDa and α actinin with molecular weight is 36.7 kDa in pork, which is not present in beef. The α actinin band with molecular weight is 88.87 kDa was detected in all reference sausages. The troponin T protein band with molecular weight is 40.14 kDa is found only in reference sausages with a larger percentage of pork. 3 of the 5 commercial sausage samples detected desine bands with molecular weight is 54.79 kDa and sample S.3 containing protein band LC₁ with molecular weight is 26,83 kDa. The results of the measurement of protein content showed that the SDS-PAGE method was able to distinguish the protein profiles among beef, pork and their processed products.

Keywords: Sausage, Beef, Pork, SDS-PAGE, Protein