

Purification and characterization of very low density lipoprotein in commercial broiler and crossbred village chickens by fast protein liquid chromatography

ABSTRACT

Very low density lipoprotein (VLDL) of commercial broiler (CB) and crossbred village chicken (AK) was purified using Fast Protein Liquid Chromatography (FPLC). The fraction collected was then confirmed as VLDL using 4% polyacrylamide gel electrophoresis and transmission electron microscopy (TEM). The particle size of VLDL is 46.8 8.6 nm. The VLDL fraction was then subfractionated and the apolipoprotein (apo) profile was studied by sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDSPAGE). The CB and AK have almost similar types of apo in both subfractions 1 and 2. The AK showed the presence of apoAI, AIV, D and E whereas the CB had apo AIV, D, E and H. The apo AIV and apo E were present in both subfractions of AK and CB.

Keyword: Apolipoprotein; Broiler; Crossbred village chicken; Fast protein liquid chromatography; Very low density lipoprotein