LIPOPHORIN ENDOCYTIC UPTAKE BY INSECT TESTES

Oliveira, G.A., Golodne, D.M. and Atella, G.C.

Instituto de Bioquímica Médica, Universidade Federal do Rio de Janeiro, RJ, Brasil. gial@bioqmed.ufrj.br

Lipophorin (Lp) is the major lipoprotein in insect hemolymph. It is known to selectively transfer lipids between sites of lipid storage and utilization without endocytosis. We previously demonstrated that Lp transfers neutral lipids such as diacylglycerol to *R. prolixus* testes. In the present work, we have analyzed the Lp endocytic uptake by testes. A kinetics of Lp uptake by testes was performed using Lp labeled in the protein moiety with ^{125}I (^{125}I-Lp). ^{125}I-Lp was injected into males at 28^{o}C on the second day after feeding. After different times, testes were dissected and radioactivity estimated. At 28^{o}C, Lp uptake was linear up to 30 hours. No Lp uptake was observed at 0^{o}C. During the analyzed time, the radioactivity decreased from hemolymph; and no peak of radioactivity from ^{125}I-Lp apoproteins was observed in hemolymph until 5 days after injection. Western blotting and microscopy experiments also revealed the presence of Lp inside of testes. A kinetics of phospholipid incorporation using Lp labeled with ^{32}Pi (^{32}P-Lp) was also linear at least for 30 hours. No phospholipid uptake was observed at 0^{o}C. Moreover, an excess of unlabeled Lp, but not albumin, prevented the uptake of ^{32}P-Lp. Thin-layer chromatography (TLC) analysis showed that lipids from Lp were associated with spermatozoa and seminal plasma fractions of testes.

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