

LIPID ACCUMULATION BY OOCYTES OF *RHODNIUS PROLIXUS*

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Adult females of *Rhodnius prolixus* were injected with [³H]-palmitic acid and hemolymph was collected. Lipophorin was then purified from radioactive hemolymph by KBr ultracentrifugation gradient. This lipophorin was predominantly labeled in diacylglycerol, and it was injected in non-radioactive females. Ovaries and hemolymph were collected at different times, and it was observed that lipophorin transferred diacylglycerol to ovaries when females were kept at 28 °C, but not 0 °C. Lipophorin was also able to transfer free fatty acids to ovaries. The capacity of oocytes to incorporate these lipids changed during the days after blood meal, and was maximal between 2-4 days after meal. Our results also showed that in oocytes triacylglycerol was the major neutral lipid found at different stages of development and its content increased during oogenesis. Diacylglycerol delivered by lipophorin seemed important substrate source for the formation of lipid reserves, since radioactivity was found associated with lipids, especially TAG, in mature oocytes collected from females previously injected with labeled lipophorin. Real time PCR revealed the presence of acyl-CoA binding protein (ACBP) mRNA in oocytes and the highest content was found in oocytes of 2.0 mm length. These results indicated a possible role of this protein in the formation of TAG reserves especially at the final steps of oogenesis.

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