

IMMUNOLOCALIZATION OF UBIQUITINATED-VITELLIN (VT- UBIQ) IN THE
YOLK GRANULES OF *RHODNIUS PROLIXUS* OOCYTES.

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A phospholipoglycoprotein protein known as vitellin (VT) that constitutes the major protein in the eggs of *Rhodnius prolixus* are present in three heterogeneous populations identified and named VT1, VT2 and VT3 (Salerno et. al., Insect Biochem Mol Biol. 2002). Among these populations only VT1 is ubiquitinated (Mendonça et al. 2006). Using different sizes of gold-labeled Goat-anti rabbit IgG (vitellin) and goat anti-mouse IgG (ubiquitin) we show here that part of the small granules are double labeled providing additional support to earlier observation. Using cryosection technique we were able to observe that, at the initial stages of embryogenesis, the ubiquitinated-VT was associated exclusively with small size granules. Three days later, large size granules were also labeled, suggesting the transfer of proteins from small granules to large granules. In insects this event can be explained by the fusion yolk granules in calcium -dependent manner (Ramos et. al., Mol Reproduction and Develop, 2006). To check for this possibility we isolated from non-fertilized eggs, small size granules and large size granules populations to be assayed in the presence of calcium ions. Small granules population, that contains ubiquitinated-VT, does not undergo fusion processes in the presence of calcium but in the presence of large granules fusion occurs and large granules becomes labeled when antibody against ubiquitin is used, suggesting that the fusion process requires different types of granules.

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