# Changes in apyrase activity in uterus and mammary gland during the lactogenic cycle

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1. 1. The purpose of this present research was to explore the possible roles of ATP-diphosphohydrolase (apyrase) in two tissues with high energetic demands during cell proliferation and differentiation. 2. 2. Changes in apyrase activities during the pregnancy lactation cycle were examined in the rat uterus and mammary gland. 3. 3. A significant decrease in apyrase activity (ATPase-ADPase) was observed in the pregnant uterus; this observation correlates with a minor inhibitory effect on platelet aggregation. 4. 4. In mammary gland, the enzyme activity increases during lactation in parallel with an increase in blood supply, synthesis of glycoproteins and cell proliferation. 5. 5. Apyrase activity did not change during the estrous cycle. Estradiol administration to rats slightly increased (20%) both ATPase-ADPase activities. 6. 6. The probable function of apyrase in finally discussed, based on its substrate specifity and subcellular localization.