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## JOURNAL ARTICLE

# S-adenosyl-L-methionine decarboxylase activity in the rat epididymis: ontogeny and androgenic control

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The authors describe the occurrence of high levels of S-adenosyl-L-methionine decarboxylase (SAMDC) activity in the rat epididymis, and its ontogeny and androgenic control. As early as 15 days of age, SAMDC activity exists, although a peak of activity is observed at 25 days. Bilateral orchidectomy resulted in a decline of epididymal SAMDC activity. However, an androgen-independent fraction, accounting for 34% of total activity, appears to exist in the epididymis. In 45-day-old orchidectomized rats, SAMDC activity was stimulated by testosterone treatment in a dose-dependent manner. However, treatment of 45-day-old intact animals with a high dose of the androgen failed to modify SAMDC activity, indicating that, at this age, the enzyme is maximally stimulated by endogenous androgens. The observed effect of testosterone on castrated rats was completely abolished by concomitant treatment with the antiandrogen flutamide. This compound was ineffective on the androgen-insensitive fraction. To assess the contribution of circulating and luminal androgens to the maintenance of epididymal SAMDC, rats were unilaterally orchidectomized and activity was determined in both epididymides after 7 days. The SAMDC activity was identical in epididymides from both sides, suggesting circulating androgens suffice to maintain normal levels of activity. It was concluded that androgens regulate epididymal SAMDC activity, although an androgen-independent fraction appears to exist.

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