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Catecholamine Stimulation of Androgen Production by Mouse Interstitial Cells in Primary Culture

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The catecholamines isoproterenol, epinephrine, and norepinephrine stimulated androgen production by mouse interstitial cells in primary culture. The amount of androgen produced in response to maximum stimulation with these amines was less than that produced with maximum human chorionic gonadotropin stimulation, but produced an additive effect when combined with a submaximal concentration of human chorionic gonadotropin. The stimulatory effect of isoproterenol could be blocked by the β-receptor antagonist propranolol. Isoproterenol did not stimulate androgen production by either freshly isolated mouse interstitial cells or whole decapsulated testes.

Key words: catecholamines, Leydig cells, androgens, cell culture

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