

## **Blockade of different subtypes of $\alpha$ 1-adrenoceptors produces opposite effect on heart chronotropy in newborn rats**

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### **Abstract**

We compared the effects of blockade of  $\alpha$ 1A-,  $\alpha$ 1-, and  $\alpha$ 1D-subtypes of  $\alpha$ 1- adrenoceptors on the cardiac rhythm in newborn rats. Different responses of the heart were observed after blockade of several subtypes of  $\alpha$ 1- adrenoceptors. Administration of WB 4101, a selective blocker of  $\alpha$ 1A-adrenoceptors, increased heart rate, while blockade of  $\alpha$ 1AD-adrenoceptors with BMY 7378 decelerated of heart rhythm. Blockade of  $\alpha$ 1-adrenoceptors with chloroethylclonidine produced no significant effects on heart chronotropy. © 2012 Springer Science+Business Media New York.

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### **Keywords**

$\alpha$ 1-adrenoceptor, heart, ontogeny, rat, sympathetic regulation