

Bulletin of Experimental Biology and Medicine 2014 vol.156 N3, pages 299-302

Involvement of P2Y_{2,4} receptors in the regulation of myocardial contractility in growing rats

Anikina T., Anisimova I., Zverev A., Sitdikov F., Zefirov T.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Experiments with R₂Y receptor blockers allowed identification of R₂Y subtypes mediating the inhibitory effects of uridine triphosphate on myocardial contractility. In 100-day-old animals, the myocardial inotropic response to the administration of uridine triphosphate was mediated by R₂Y₂ receptors. R₂Y₄ receptors took part in the realization of negative inotropic response to uridine triphosphate in all age groups, but the most pronounced effects of this substance on myocardial contractility were found in 100-day-old rats. It was found that R₂Y receptor blockers PPADS and reagent blue-2 affect amplitude-time parameters of myocardial contractility in rats of various ages. © 2014 Springer Science+Business Media New York.

<http://dx.doi.org/10.1007/s10517-014-2334-2>

Keywords

heart, myocardial contractility, ontogeny, purine receptors