

Bulletin of Experimental Biology and Medicine 2007 vol.143 N6, pages 695-698

Role of P2X and P2Y receptors in rat myocardial contractility during ontogeny

Anikina T., Bilalova G., Zverev A., Sitdikov F.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Stable agonist of P2 receptors 2-methylthio-ATP and selective antagonists of P2X and P2Y receptors PPADS and reactive blue-2 were used for evaluation of the role of P2 receptors in positive contractile reaction of atrial and ventricular myocardium in rats. PPADS significantly moderated the effects of 2-methylthio-ATP in 14-, 21-, and 56-day-old rat pups, but potentiated them in 100-day-old rats. Under conditions of reactive blue-2 treatment, the positive effect of the agonist was preserved in the atria and ventricles in all age groups and was age-dependent. © Springer Science+Business Media, Inc. 2007.

<http://dx.doi.org/10.1007/s10517-007-0217-5>

Keywords

Contractility, Myocardial strips, Ontogenesis, P2X and P2Y receptors