

Abstract

Adrenergic receptors are ones of the most investigated receptors today. Signal transduction by adrenergic receptors is involved in stress response. Stress activates the sympathetic and the hypothalamic-pituitary-adrenal axis of autonomic nervous system. Understanding effects of this activation on adrenergic signalisation is important for affection of the „fight of flight“ reaction. Affecting the activity of sympathetic nerve is important subject of interest in pharmacology and many drugs are developed using this actions.

This thesis deals with a group α -adrenergic receptors and its subtypes. One part is devoted to structure which is subject of many explorations recently especially. Next chapter focuses on signal transduction mediated by α -adrenergic receptors. The last section refers to multitude of physiologic functions induced by these receptors.