Regulation of protein phosphatase 2A by ARPP-16 and MAST kinase in striatal medium spiny neurons

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INTRODUCTION

Dopamine plays an important modulatory role in the central nervous system, helping to control critical aspects of motor function and reward learning. Alterations in normal dopaminergic neurotransmission underlay multiple neurological diseases, including schizophrenia, Huntington's disease and Parkinson's disease, and the addictive actions of dopamine. In the brain of normal rats, dopamine is released by the dopaminergic terminals of the nigrostriatal, mesolimbic, and mesocortical pathways and is thought to modulate neurotransmission in the striatum by regulating the activity of postsynaptic receptors such as the dopamine D1 and D2 receptors. The dopaminergic terminals of the nigrostriatal, mesolimbic, and mesocortical pathways and are thought to modulate neurotransmission in the striatum by regulating the activity of postsynaptic receptors such as the dopamine D1 and D2 receptors. Dopamine receptors are activated by the neurotransmitter dopamine and play a key role in the regulation of extracellular signal-regulated kinases (ERKs), which are members of the mitogen-activated protein kinase (MAPK) family. ERKs are involved in a variety of biological processes, including cell proliferation, differentiation, and survival. ERK activation is mediated by the activation of the MAPK/ERK kinase (MEK) pathway. The MEK pathway is composed of two kinases: MEK1 and MEK2, which are kinases that are activated by extracellular signal-regulated kinases (ERKs). ERK activation is mediated by the activation of the MEK pathway. The MEK pathway is composed of two kinases: MEK1 and MEK2, which are kinases that are activated by extracellular signal-regulated kinases (ERKs). ERK activation is mediated by the activation of the MEK pathway. The MEK pathway is composed of two kinases: MEK1 and MEK2, which are kinases that are activated by extracellular signal-regulated kinases (ERKs). 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