

Adenosine receptors in GtoPdb v.2023.1

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Abstract

Adenosine receptors (**nomenclature as agreed by the NC-IUPHAR Subcommittee on Adenosine Receptors [112]**) are activated by the endogenous ligand **adenosine** (potentially **inosine** also at A₃ receptors). Crystal structures for the antagonist-bound [155, 316, 224, 62], agonist-bound [379, 205, 206] and G protein-bound A_{2A} adenosine receptors [49] have been described. The structures of an antagonist-bound A₁ receptor [130] and an adenosine-bound A₁ receptor-G_i complex [87] have been resolved by cryo-electronmicroscopy. Another structure of an antagonist-bound A₁ receptor obtained with X-ray crystallography has also been reported [58]. The structure of the A_{2B} receptor has also been elucidated [57]. **caffeine** is a nonselective antagonist for adenosine receptors, while **istradefylline**, a selective A_{2A} receptor antagonist, is on the market for the treatment of Parkinson's disease.

Contents

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Adenosine receptors

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Receptors

A₁ receptor

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A_{2A} receptor

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A_{2B} receptor

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A₃ receptor

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=21>

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