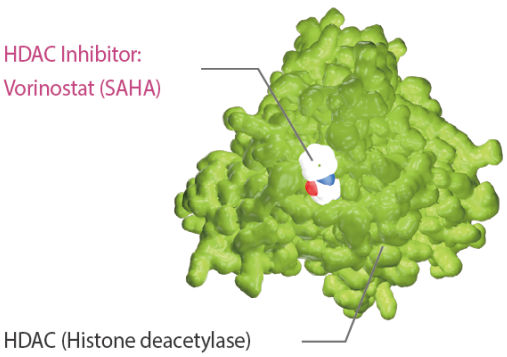
Adenosine Kinase

ADK



Adenosine kinase (AK) is a cytosolic enzyme that catalyzes the conversion of adenosine to AMP. One potential adenosine regulating agent (ARA) target is adenosine kinase. Adenosine kinase activation represents the major clearance route of adenosine and is partly responsible for its extremely short plasma half-life (<1 s). Inhibition of adenosine kinase results in increased intracellular adenosine which passes out of the cell via passive diffusion or via nucleoside transporter(s) to activate nearby cell-surface adenosine receptors. Thus, adenosine kinase inhibition can represent an alternative mechanism for activation of adenosine receptors and production of adenosine-associated pharmacologies.

Adenosine kinase inhibitors (AKIs) represent an alternative strategy, since AKIs may raise local adenosine levels in a more site- and event-specific manner and thereby elicit the desired pharmacology with a greater therapeutic window. Several potent AKIs are shown to exhibit anticonvulsant activity in the rat maximal electric shock (MES) induced seizure assay.

Adenosine Kinase Inhibitors & Modulators

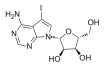
5-Iodotubercidin

(NSC 113939; 5-ITu)

Cat. No.: HY-15424

Bioactivity: 5-Iodotubercidin is a potent **adenosine kinase** inhibitor with **IC_{50}** of 26 nM.

Purity: 98.85%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
2 mg, 5 mg, 25 mg, 50 mg

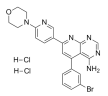


ABT-702 dihydrochloride

Cat. No.: HY-103161

Bioactivity: ABT-702 dihydrochloride is a potent **adenosine kinase** (**AK**) inhibitor (**IC_{50}**=1.7 nM).

Purity: 98.03%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg



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