Tribioscience

2-Chloroadenosine, A1 adenosine agonist

Catalog	Unit
TBI1158-50MG	50 mg
TBI1158-250MG	250 mg

Product Details

Formal Name: 6-Amino-2-chloropurine riboside
Alternate Names: 2-CAdo; 2-CADO; 2-Cl Ado
Molecular Formula: $C_{10}H_{12}ClN_5O_4$
Formula Weight: 301.70
CAS Number: 146-77-0
Purity: >98%
Formulation: powder
Solubility: Soluble in DMSO (up to 30 mg/ml) or in Water (up to 7 mg/ml).
Storage: -20°C
Stability: ≥ 1 year.

Applications

A1 adenosine agonist

Functions

A metabolically stable adenosine analog that acts as an agonist at A1, A2a, and A3 adenosine receptors (Ki = 300, 80, 1900 nM). 2-Chloroadenosine is also a bidirectional substrate for equilibrative nucleoside transporter 4 (ENT4) in acidic conditions. At 100 µM, it causes accumulation of cAMP in neonatal mouse osteoblast-like cells. Reduces intracellular ATP levels through both ATP consumption and AMP deamination, and induces apoptosis in leukemic B-cells and rheumatoid fibroblasts.

Application Procedures

First dissolved in DMSO (up to 30 mg/ml) or in Water (up to 7 mg/ml), then diluted to aqueous buffer.

For research use only.