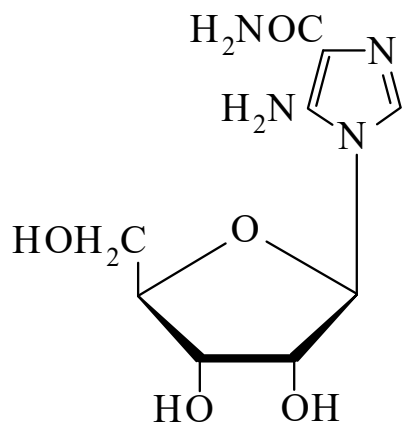
>>**Entry Name: Acadesine,** BAN, INN, USAN
ENTRY UNDER REVIEW
Synonym(s): 5-Amino-1-ribofuranosyl-1*H*-imidazole-4-carboxamide, 9CI. AICA-Riboside. AICAR. GP 1-110



CAS Registry Number: 2627-69-2

Molecular Formula: $C_9H_{14}N_4O_5$
Molecular Weight: 258.233
Accurate Mass: 258.096421
Percentage Composition: C 41.86%; H 5.46%; N 21.70%; O 30.98%
Source/Synthesis: Accumulates in the culture medium of *E. coli* under sulfonamide stasis. Manuf. by *Bacillus pumilus* and *Bacillus subtilis*
Use/Importance: Platelet aggregation inhibitor
Physical Description: Pink rosettes (EtOH)
Melting Point: Mp 215-216 dec.°
Optical Rotation: $[\alpha]_D^{27}$ –62.4 (c, 0.5 in H_2O)
Solubility: BERDY SOL: Sol. H_2O
Calculated Log P Data: Log P –2.97 (calc)

Sigma: A8129

>>**Derivative:** Picrate

CAS Registry Number: 24418-25-5
Melting Point: Mp 146-147°

>>**Derivative:** 2',3',5'-Tri-Ac

CAS Registry Number: 23274-21-7

Molecular Formula: $C_{15}H_{20}N_4O_8$
Molecular Weight: 384.345
Accurate Mass: 384.128116
Percentage Composition: C 46.88%; H 5.24%; N 14.58%; O 33.30%
Melting Point: Mp 69° (88-90°, 130-131°)
Optical Rotation: $[\alpha]_D^{27}$ –30.5 (c, 1.0 in EtOH)

>>**Derivative:** *N*,2',3',5'-Tetra-Ac

CAS Registry Number: 37805-74-6

Molecular Formula: $C_{17}H_{22}N_4O_9$
Molecular Weight: 426.382
Accurate Mass: 426.138681
Percentage Composition: C 47.89%; H 5.20%; N 13.14%; O 33.77%
Physical Description: Cryst. (EtOH)
Melting Point: Mp 208-209°
Optical Rotation: $[\alpha]_D^{26}$ +2.9 (c, 0.51 in $CHCl_3$)

>>**Derivative:** 2',3'-*O*-Isopropylidene, 5'-Ac

Molecular Formula: $C_{14}H_{20}N_4O_6$
Molecular Weight: 340.335
Accurate Mass: 340.138286
Percentage Composition: C 49.41%; H 5.92%; N 16.46%; O 28.21%
Melting Point: Mp 168-169°