



AICAR

Cat. No.:	OB0225LY-0373
Appearance:	Solid
Purity:	≥99%
Identity:	Confirmed by NMR and LC-MS.
Size:	25 mg; 50 mg; 100 mg; 1 g; 2 g

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description	AICAR is an adenylate analog that activates the AMPK signaling pathway and promotes energy metabolism.
Synonym	NSC105823; AICA Riboside; Acadesine; AICAR (Acadesine); 2627-69-2; 5-Amino-1-beta-D-ribofuranosyl-1H-imidazole-4-carboxamide; 5-Amino-1-beta-D-ribofuranosylimidazole-4-carboxamide
CAS No.	2627-69-2
Compound CID	17513
Formula	C ₉ H ₁₄ N ₄ O ₅
Formula Weight	258.23

Specification

Relative Density	2.06 g/cm ³
IUPAC Name	5-Amino-1-[(2R,3R,4S,5R)-3,4-dihydroxy-5-(hydroxymethyl)oxolan-2-yl]imidazole-4-carboxamide
InChI	InChI=1S/C9H14N4O5/c10-7-4(8(11)17)12-2-13(7)9-6(16)5(15)3(1-14)18-9/h2-3,5-6,9,14-16H,1,10H2,(H2,11,17)/t3-,5-,6-,9-/m1/s1
InChI Key	RTRQQBHATOEIAF-UUOKFMHZSA-N
SMILES string	C1=NC(=C(N1[C@H]2[C@@H]([C@@H]([C@H](O2)CO)O)O)N)C(=O)N
Stability	3 years in powder form.
Storage	Storage at -20°C.



Applications

AICAR can be used to study metabolic syndrome or play an important role in exercise physiology.

Library Information

Targets	Serine/Threonine kinases; Transcription regulators
Receptors	AMPK; YAP
Pathways	Autophagy; PI3K/Akt/mTOR signaling; Chromatin/Epigenetic; Stem cells
Plate Number	AOCL-5
Plate Location	g8
Empty Location	a1-h1; a12-h12
Container	96-well plate
Formulation	10 mM DMSO
DMSO Max Solubility	80 mg/mL; 309.8 mM
Water Max Solubility	19.4 mg/mL; 75 mM
ALogP	-2.913
HBA_Count	3
HBD_Count	5
Rotatable Bond	3