AICAR

AMPK activator

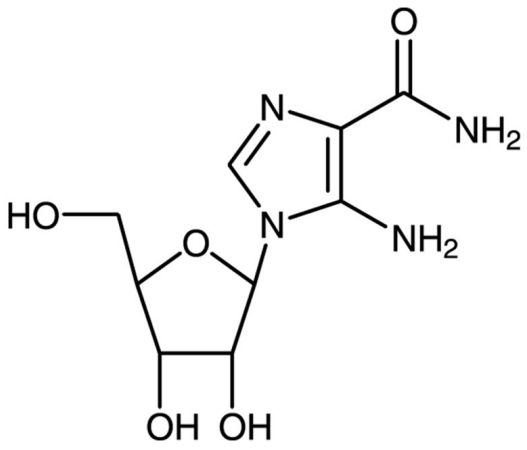
An adenosine analog that is phosphorylated in whole cells to form 5-aminoimidazole-4-carboxamide-1-D-ribofuranosyl-5'-monophosphate (ZMP), which stimulates AMPK activity. AICAR acts by entering nucleoside pools, significantly increasing levels of adenosine during periods of ATP breakdown. Induces the phosphorylation of TORC2 and inhibits its entry into the nucleus. Mimics the effects of insulin on the expression of two gluconeogenic genes PEPCK and glucose-6-phosphatase. Inhibits PPARα coactivation and adipocyte differentiation. Substrate for the AICAR transformylase activity of ATIC. Inhibits the growth of prostate cancer cells by inhibiting fatty ascid synthesis. Supresses LPS-induced TNF production via the inhibition of Akt activation. Induces apoptosis in Jurkat cells via a non-AMPK pathway.

Citations: 13 View Online »

Ordering Information Order Online »

BML-EI330-0050	50mg
BML-EI330-0250	250mg

Manuals, SDS & CofA View Online »


O
N
NH2
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NH2
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Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	5-Aminoimidazole-4-carboxamide 1-β-D-ribofuranoside, Acadesine
Appearance	Off-white solid.
CAS	2627-69-2
Couple Target	AICAR transformylase, AMPK
Couple Type	Activator, Substrate
Formula	$C_9H_{14}N_4O_5$
MW	258.2
Purity	≥98% (TLC)
Solubility	Soluble in water (9mg/ml).

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