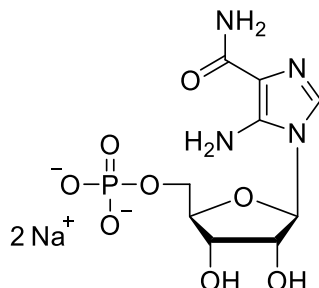


Technical Information about AICAR-5'-MP

Update: October 02, 2018 HU



Abbreviation: AICAR-5'-MP / ZMP / AICA-ribonucleotide

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₉ H ₁₅ N ₄ O ₈ P (free acid)	[3031-94-5]	338.2 (free acid)	λ _{max} 265 nm / ε 12500 / pH 7	A 105

Name: 5- Aminoimidazole- 4- carboxamide- 1- β- D- ribofuranoside- 5'- O- monophosphate

Description: AICAR-5'-MP is a 5'-phosphorylated analogue of the cell-permeable AICA-riboside (AICAR, Cat. No. A 103).

Properties: AICAR-5'-MP mimics AMP and acts as an activator of AMP-activated protein kinase (AMPK).

Specification: Crystallized or lyophilized sodium salt. The free acid or other salt forms of AICAR-5'-MP are available upon request. Please keep in mind that equal concentrations of the compound may look different in volume due to sensitivity to humidity. The compound can even contract to small volume droplets. Normally the product is located in the conical bottom of the tube. Micromolar quantities are determined by UV at λ_{max}.

Purity: Typical analysis is better than 97% (HPLC / UV / 265 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: AICAR-5'-MP has sufficient solubility in water. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube please make sure that no substance is lost within the cap.

Stability and Storage: AICAR-5'-MP has sufficient stability for short term exposure to ambient temperature and does not need special care during handling or shipment. Nevertheless, we recommend that the compound should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: Please keep in mind that the *in vivo* properties of this compound are not sufficiently characterized up to now. Avoid skin contact or ingestion and allow only trained personnel to handle the product. Our products are designed, developed and sold for research purposes only. They are intended for *in vitro* and nonhuman *in vivo* laboratory applications. Any other use requires approval of health authorities.

Not for drug, household or related uses!

Selected References for AICAR-5'-MP:

Musi, N.; Goodyear, L.J., *Acta Physiol. Scand.*, **178**, 337 - 345 (2003): "AMP-activated Protein Kinase and Muscle Glucose Uptake"

Fryer, L.G.; Fougelle, F.; Barnes, K.; Baldwin, S.A.; Woods, A.; Carling, D., *Biochem. J.*, **363**, 167 - 174 (2002): "Characterization of the Role of the AMP-activated Protein Kinase in the Stimulation of Glucose Transport in Skeletal Muscle Cells"