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产品名称：N-(5-氨基戊基)乙酰胺
产品别名：N-(5-Aminopentyl)acetamide；Monoacetylcadaverine

生物活性：

Description	N-(5-Aminopentyl)acetamide is the acetylated form of the polyamine cadaverine.
IC_{50} & Target	Human Endogenous Metabolite
In Vitro	Polyamine is a small organic polycation composed of a hydrocarbon backbone with multiple amino groups which ubiquitously exists in all living organisms from bacteria to higher animals. The critical step of polyamine biosynthesis generally includes the amino acid-decarboxylating reaction to produce the primary diamines, such as cadaverine from lysine. Synthesized polyamines are implicated in a wide variety of cytoplasmic reactions such as DNA replication and protein synthesis, and are essential for proper growth and proliferation of the organisms[1]. Cadaverine is a linear molecule that terminate at both ends with an amine functional group. These functional groups confer to the molecules multiple positive charges at physiological pH. Cadaverine is produced through the action of basic amino acid decarboxylases and is found associated with the outer membrane[2].

Solvent&Solubility

In Vitro:

DMSO : ≥ 30 mg/mL (208.03 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.9343 mL	34.6717 mL	69.3433 mL
	5 mM	1.3869 mL	6.9343 mL	13.8687 mL
	10 mM	0.6934 mL	3.4672 mL	6.9343 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

References

[1]. Kojima S, et al. Molecular basis for the maintenance of envelope integrity in Selenomonas ruminantium:cadaverine biosynthesis and covalent modification into the peptidoglycan play a major role. J Nutr Sci Vitaminol (Tokyo). 2012;58(3):153-60.

[2]. Dela Vega AL, et al. Polyamines decrease Escherichia coli outer membrane permeability.