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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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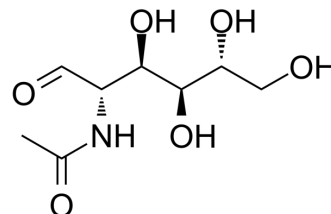
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N-Acetyl-D-mannosamine

Cat. No.:	HY-128850
CAS No.:	3615-17-6
Molecular Formula:	C ₈ H ₁₅ NO ₆
Molecular Weight:	221.21
Target:	Bacterial; Endogenous Metabolite
Pathway:	Anti-infection; Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 125 mg/mL (565.07 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM	4.5206 mL	22.6030 mL	45.2059 mL	
		5 mM	0.9041 mL	4.5206 mL	9.0412 mL	
	10 mM	0.4521 mL	2.2603 mL	4.5206 mL		
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS					
	Solubility: 25 mg/mL (113.01 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	N-Acetyl-D-mannosamine (ManNAc) is an essential precursor of N-acetylneuraminic acid (NeuAc), the specific monomer of bacterial capsular polysialic acid (PA) ^[1] . N-Acetyl-D-mannosamine (ManNAc) can be metabolized by GNE and GlcNAc 2-epimerase (Renin binding protein, RnBP), into ManNAc-6-phosphate and GlcNAc, respectively. N-Acetyl-d-mannosamine (ManNAc) and its derivatives activates hypocretin (HCRT) gene expression in the orexin neurons, providing a potential model for the testing of a therapy for neural disorders ^[2] .
IC ₅₀ & Target	Human Endogenous Metabolite

REFERENCES

[1]. Revilla-Nuin B, et al. Transport of N-acetyl-D-mannosamine and N-acetyl-D-glucosamine in Escherichia coli K1: effect on capsular polysialic acid production. FEBS Lett. 2002 Jan 30;511(1-3):97-101.

[2]. Hayakawa K, et al. Reactivation of hyperglycemia-induced hypocretin (HCRT) gene silencing by N-acetyl-d-mannosamine in the orexin neurons derived from human iPS cells. Epigenetics. 2017 Sep;12(9):764-778.

Caution: Product has not been fully validated for medical applications. For research use only.

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