



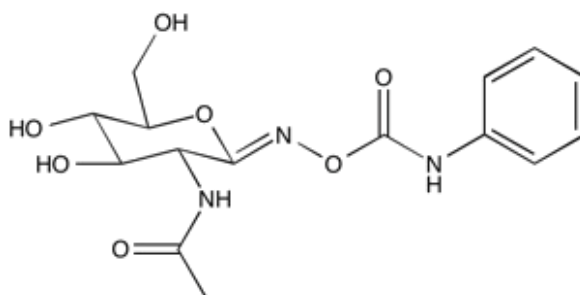
Catalog # 10-2406

PUGNAc

CAS# 132489-69-1

O-(2-Acetamido-2-deoxy-D-glucopyranosylidene)amino-Z-N-phenylcarbamate

Lot # X101430



O-GlcNAcase (O-GlcNAc- β -N-acetylglucosaminidase) and β -hexosaminidase inhibitor ($K_i=46$ and 36 nM, respectively). A widely used tool for increasing cellular levels of O-GlcNAc.² Protects cardiac function after trauma-hemorrhage which is mediated by increased protein O-GlcNAc levels.³ Induces insulin resistance in rat skeletal muscle.⁴

- 1) Macauley *et al.* (2005), *O-GlcNAcase uses substrate-assisted catalysis: kinetic analysis and development of highly selective mechanism-inspired inhibitors*; J. Biol. Chem., **280** 25313
- 2) Kneass and Marchase (2005), *Protein O-GlcNAc modulates motility-associated signaling intermediates in neutrophils*; J. Biol. Chem., **280** 14579
- 3) Zou *et al.* (2007), *The protective effects of PUGNAc on cardiac function after trauma-hemorrhage are mediated via increased protein O-GlcNAc levels*; Shock, **27** 402
- 4) Arias *et al.* (2004), *Prolonged incubation in PUGNAc results in increased protein O-Linked glycosylation and insulin resistance in rat skeletal muscle*; Diabetes, **53** 921

PHYSICAL DATA

Molecular Weight:	353.33
Molecular Formula:	C ₁₅ H ₁₉ N ₃ O ₇
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 35 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

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