

Catalog # 10-2127

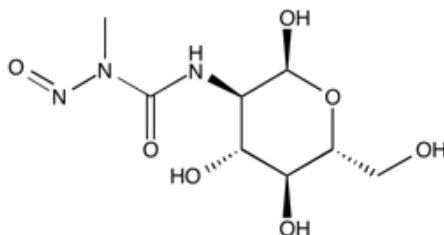
Streptozotocin

CAS# 18883-66-4

2-Deoxy-2-[[[(methylnitrosoamino)carbonyl]amino]-D-glucose

Streptozocin; U-9889

Lot # X101213



An N-nitroso-aminoglucose derivative which is used to produce animal models of diabetes.¹ Alkylates DNA.² Inhibits pancreatic β -cell O-GlcNAc selective N-acetyl- β -D-glucosaminidase.³ Selectively induces death of β -cells which mechanistically is independent of N-acetyl- β -D-glucosaminidase inhibition.⁴ Is not a spontaneous NO donor.⁵

- 1) Szkudelski *et al.* (2001), *The mechanism of alloxan and streptozotocin action in B cells of the rat pancreas.*; *Physiol. Res.*, **50** 537
- 2) Bennett & Pegg (1981), *Alkylation of DNA in rat tissues following administration of streptozotocin*; *Cancer Res.*, **41** 2786
- 3) Konrad *et al.* (2001), *The potential mechanism of the diabetogenic action of streptozotocin inhibition of pancreatic beta-cell O-GlcNAc-selective N-acetyl-beta-D-glucosaminidase*; *Biochem. J.*, **356 Pt 1** 31
- 4) Gao *et al.* (2000), *Streptozotocin-induced beta-cell death is independent of its inhibition of O-GlcNAcase in pancreatic Min6 cells*; *Arch. Biochem. Biophys.*, **383** 296
- 5) Kroncke & Kolb-Bachofen (1996), *Streptozotocin is not a spontaneous NO donor.*; *Free Radic. Res.*, **24** 77

PHYSICAL DATA

Molecular Weight:	265.22
Molecular Formula:	C ₈ H ₁₅ N ₃ O ₇
Purity:	97% by TLC
	NMR: (Conforms)
Solubility:	Soluble in DMSO (up to 25 mg/ml) or in Water (up to 25 mg/ml)
Physical Description:	Off-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 or distilled water may be stored at -20°C for up to 1 month.

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