

Streptozocin

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Brand name: Zanosar®

IUPAC: 1-methyl-1-nitroso-3-[(2S,3R,4R,5S,6R)-2,4,5-trihydroxy-6-(hydroxymethyl)oxan-3-yl]urea

FDA approval: Yes

[Manufacturer Link](#)

Usage:

Streptozocin is used in the treatment of metastatic islet cell carcinoma. (Islet cells are specialized cells of the pancreas.) Streptozocin is usually administered either as an injection or in as an infusion. [1](#)

- [1](#)Zanosar.. Prescribing Information. Pharmacia & Upjohn Company. February, 2003. <http://www.pfizer.com>]

Mechanism:

Streptozocin (Zanosar®) is thought to inhibit DNA synthesis and thus prevent cell division though the exact mechanism by which it causes cell death is not known.

The diagram below shows the 3D molecular structure of Streptozocin.



Side effects:

Common side effects include nausea and vomiting, diarrhea, pain at injection site, elevated liver enzymes. Renal toxicity can occur in patients receiving streptozocin. For this reason kidney function should be monitored closely with blood and urine tests. Risk of renal toxicity increases with prolonged treatment and with higher doses. Because of the renal toxicity, only patients with uncontrolled and/or symptomatic disease are treated with this drug.

Contraindications:

Due to streptozocin's potential to cause harm to the unborn fetus, pregnant women should fully consider the risks and benefits of treatment before beginning. The drug is also toxic to the kidneys.