Streptozotocin
Cell Culture Tested
Product Code: TC418

Product Description:
Molecular Weight: 265.22
Molecular Formula: C₈H₁₅N₃O₇
CAS No.: 18883-66-4
Synonym: N-(methyl nitroso carbamoyl)-α-D-glucosamine, Streptozocin, STZ

Streptozotocin (STZ) is a broad-spectrum antibiotic obtained from Streptomyces achromogenes. It exhibits antibacterial activity and is a preferred diabetogenic agent. STZ inhibits DNA synthesis in both bacterial and mammalian cells. It is a glucose analogue that is used to produce diabetes in experimental animals by selective destruction of pancreatic β cells. STZ affects all phases of the cell cycle and inhibits the progress of cells into mitosis and cell proliferation. It acts by causing DNA strand breaks inside the nucleus of cells and increases the activity of poly(ADP-ribose) polymerase (PARP) leading to cell death. STZ acts as a strong methylating agent which forms methylated purines on reacting with DNA.

Directions:
Preparation instructions:
For cell culture applications, Streptozotocin solutions can be prepared as per required concentrations in water. Solutions can be sterilized by filtering through a sterile membrane filter with a porosity of 0.22 microns or less.

Quality Control:
Appearance
White to yellow powder
Solubility
Light yellow to dark yellow clear solution at 50 mg per ml in water
Melting Range
~121°C (dec.)
α-isomer
NLT 75.00%
Assay (HPLC)
NLT 98.00%
Cell Culture Test
Complies

Storage and Shelf Life:
Store powder at -20°C in air tight containers. Use before expiry date given on the product label.

Disclaimer:
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