Sodium selenite

Product Number 21,448-5
Store at Room Temperature

Replacement for Product Number S 1382

**Product Description**
Molecular Formula: Na₂SeO₃
Molecular Weight: 172.9
CAS Number: 10102-18-8
Synonym: selenious acid sodium salt

Sodium selenite is commonly used as a source of selenium in biological research, where selenium is an essential trace element that is normally provided by serum. Selenium is present in selenoproteins such as glutathione peroxidase and thioredoxin reductase, which contain the selenium analog of cysteine, selenocysteine. In particular, glutathione peroxidase has a role in detoxification in vivo as a scavenger of peroxides. Sodium selenite is included in various medium supplements for use in cell culture (Product No. I 1884, S 5791, and S 5666).

Sodium selenite has been utilized in studies of cell proliferation and cancer research. It has been used to alter gene expression in HepG2 cells as analyzed by cDNA microarrays. Sodium selenite can inhibit zinc finger protein/DNA interactions. Sodium selenite has been shown to alter mitochondrial membrane potentials and thus potentially contribute to apoptosis.

**Precautions and Disclaimer**
For Laboratory Use Only. Not for drug, household or other uses.

**Preparation Instructions**
This product is soluble in water (50 mg/ml), yielding a clear to slightly hazy, colorless to very faint yellow solution.

**Storage/Stability**
Stock solutions of sodium selenite may be frozen. Working aliquots are stable for 30 days at 2-8 °C.

**References**
1. The Merck Index, 12th ed., Entry# 8822.

GCY/NSB 11/03