Certificate of Analysis

Product Name: **Diazoxide** **Catalog No.: 0964** **Batch No.: 7**

CAS Number: 364-98-7 EC Number: 206-668-1

IUPAC Name: 7-Chloro-3-methyl-2*H*-1,2,4-benzothiadiazine 1,1-dioxide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_8H_7ClN_2O_2S$

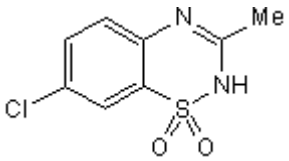
Batch Molecular Weight: 230.67

Physical Appearance: Grey solid

Solubility: DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	41.65	3.06	12.14
Found	41.52	2.89	11.94

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Description:

Antihypertensive, activates ATP-dependent K^+ channels ($K_{ir}6$). Induces activation of PKCε, an intermediate in the opening of mitoK_{ATP} channels, results in cardioprotection against hypoxia-induced death. Blocks desensitization of AMPA receptors.

Physical and Chemical Properties:

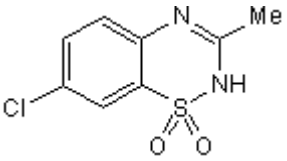
Batch Molecular Formula: $C_8H_7ClN_2O_2S$

Batch Molecular Weight: 230.67

Physical Appearance: Grey solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Merck Index ***12*** 3051.

Trube *et al* (1986) Opposite effects of tolbutamide and diazoxide on the ATP-dependent K^+ channel in mouse pancreatic β-cells. Pflugers Arch. ***407*** 493. PMID: 2431383.

Yamada and Rothman (1992) Diazoxide blocks glutamate desensitization and prolongs excitatory postsynaptic currents in rat hippocampal neurons. J.Physiol. ***458*** 409. PMID: 1302270.

Kim *et al* (2006) Diazoxide acts more as a PKC-ε activator, and indirectly activates the mitochondiral K_{ATP} channel conferring cardioprotection against hypoxic injury. Br.J.Pharmacol. ***149*** 1059. PMID: 17043673.

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