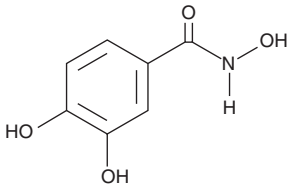
PRODUCT INFORMATION

Didox

Item No. 10009081

CAS Registry No.: 69839-83-4
Formal Name: N,3,4-tridhydroxy-benzamide
Synonym: NSC 324360
MF: $C_7H_7NO_4$
FW: 169.1
Purity: ≥98%
UV/Vis.: λ_{max}: 209, 257, 291 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Didox is supplied as a crystalline solid. A stock solution may be made by dissolving the didox in the solvent of choice, which should be purged with an inert gas. Didox is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of didox in these solvents is approximately 20 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of didox can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of didox in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Polyhydroxylated aromatic compounds, both natural and synthetic, are important biological antioxidants. Didox is a simple, synthetic antioxidant that has been found to reduce the levels of oxidative injury markers in the brains of HIV patients with dementia.[1] It also increases the radiosensitivity of cancer cells by inhibition of ribonucleotide reductase, resulting in a reduction of Bcl-2 mediated resistance to apoptosis.[2]

References

1. Turchan, J., Pocernich, C.B., Gairola, C., *et al.* Oxidative stress in HIV demented patients and protection *ex vivo* with novel antioxidants. *Neurology* **60(2)**, 307-314 (2003).
2. Inayat, M.S., Chendil, D., Mohiuddin, M., *et al.* Didox (A novel ribonucleotide reductase inhibitor) Overcomes bcl-2 mediated radiation resistance in prostate cancer cell line PC-3. *Cancer Biol. Ther.* **1(5)**, 539-545 (2002).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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