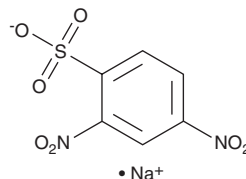


PRODUCT INFORMATION

2,4-Dinitrobenzenesulfonic Acid (sodium salt)

Item No. 42630

CAS Registry No.: 885-62-1
Formal Name: 2,4-dinitro-benzenesulfonic acid, monosodium salt
Synonyms: 2,4-DNBSA, DNBS, DNBSO₃
MF: C₆H₃N₂O₇S • Na
FW: 270.1
Purity: ≥98%
Supplied as: A 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

2,4-Dinitrobenzenesulfonic acid (sodium salt). A stock solution may be made by dissolving the 2,4-dinitrobenzenesulfonic acid (sodium salt) in the solvent of choice, which should be purged with an inert gas. 2,4-Dinitrobenzenesulfonic acid (sodium salt) is sparingly soluble (1-10 mg/ml) in DMSO.

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 2,4-dinitrobenzenesulfonic acid (sodium salt) can be prepared by directly dissolving the solid in aqueous buffers. 2,4-dinitrobenzenesulfonic acid (sodium salt) is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

2,4-Dinitrobenzenesulfonic acid is a hapten.¹ It induces the proliferation of primary lymphocytes and epithelial cells isolated from guinea pigs sensitized to 2,4-dinitrochlorobenzene (2,4-DNCB) when used at concentrations of 25, 50, or 100 ppm. 2,4-Dinitrobenzenesulfonic acid (600 mg/kg) inhibits 2,4-DNCB-induced contact sensitivity in 2,4-DNCB-sensitized guinea pigs.² It has been used to induce ulcerative colitis in rats.³

References

- Li, Q., and Aoyama, K. *In vitro* evaluation on contact sensitivity from DNCB and DNBS using lymphocyte blastogenesis response test. *Sangyo Igaku* **33**(6), 509-518 (1991).
- Frey, J.R., de Weck, A.L., and Geleick, H. Studies on the induction of immunological tolerance by antigen in guinea-pigs already sensitized to dinitrochlorobenzene. *Clin. Exp. Immunol.* **8**(1), 131-139 (1971).
- Kim, S., Lee, S., Lee, H., et al. A colon-targeted prodrug, 4-phenylbutyric acid-glutamic acid conjugate, ameliorates 2,4-dinitrobenzenesulfonic acid-induced colitis in rats. *Pharmaceutics* **12**(9), 843 (2020).

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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