**PRODUCT INFORMATION**

Nigericin (sodium salt)

Item No. 11437

CAS Registry No.: 28643-80-3

**Formal Name:**


**Synonym:**

NSC 292567

**MF:**

C_{40}H_{67}O_{11} • Na

**FW:**

747.0

**Purity:**

≥98%

**Stability:**

≥2 years at -20°C

**Supplied as:**

A crystalline solid

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**Laboratory Procedures**

For long term storage, we suggest that nigericin (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

Nigericin (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the nigericin (sodium salt) in the solvent of choice. Nigericin (sodium salt) is soluble in organic solvents such as ethanol and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of nigericin (sodium salt) in ethanol is approximately 20 mg/ml and approximately 1.2 mg/ml in DMF.

Nigericin (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, nigericin (sodium salt) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Nigericin (sodium salt) has a solubility of approximately 0.15 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

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**Description**

Nigericin is an antibiotic derived from *S. hygroscopicus* that acts as a potassium ionophore promoting K⁺/H⁺ exchange across mitochondrial membranes. Nigericin can be used as a research tool to disrupt intracellular H⁺ and K⁺ concentration, thus altering pH, membrane potential, and cell volume.¹⁻³ At 10 μM, nigericin induces egress of *T. gondii* parasites by inducing efflux of K⁺.⁴

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**References**