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Nigericin (sodium salt)

5 mg

For Research Use Only. Not for Use in Diagnostic Procedures.

Background

Nigericin (sodium salt) is an electroneutral K⁺/H⁺ ionophore derived from *S. hygroscopicus*. This antibiotic is lipophilic and selectively causes efflux of potassium across mitochondrial membranes (1,2). The ion exchange can lead to disruption of membrane potential, changes in pH, and cell death making the compound useful for studying areas of interests such as apoptosis, mitosis, and the immune response (3).

Molecular Formula

C₄₀H₆₇O₁₁ • Na

Molecular Weight

747 g/mol

Purity

>98%

CAS

28643-80-3

Solubility

Soluble in DMSO at 50 mg/ml and EtOH at 20 mg/ml.

Storage

Store lyophilized at 4°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 2 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use

Nigericin (sodium salt) is supplied as a lyophilized powder. For a 10 mM stock, reconstitute 5 mg of powder in 669 µl of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References

1. Fruth, I.A. and Arrizabalaga, G. (2007) *Int J Parasitol* 37, 1559-67.
2. Kucejova, B. et al. (2005) *Genetics* 171, 517-26.
3. Lim, J. et al. (2012) *J Biol Chem* 287, 23271-82.

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