Product Information

Iodonitrotetrazolium (chloride)
Item No. 16073

CAS Registry No.: 146-68-9
Formal Name: 2-(4-iodophenyl)-3-(4-nitrophenyl)-5-phenyl-2H-tetrazolium, monochloride
Synonyms: INT, Iodonitrotetrazolium violet, NSC 27620
MF: C19H13IN5O2 • Cl
FW: 505.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λ_max: 249 nm

Laboratory Procedures

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

INT (chloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the INT (chloride) in the solvent of choice. INT (chloride) is soluble in organic solvents such as ethanol and DMSO. The solubility of INT (chloride) in these solvents is approximately 30 and 0.5 mg/ml, respectively.

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 INT (chloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of INT (chloride) in PBS, pH 7.2, is approximately 10 mg/ml.

INT (chloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the DMSO solution of INT (chloride) should be diluted with the aqueous buffer of choice. INT (chloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

INT (chloride) is a monoterazolium salt used as an indicator dye.1,2 It is reduced to an insoluble formazan that is used as a vital dye or indicator of cellular redox activity.1 Reduction commonly results from the activity of dehydrogenases, although non-enzymatic electron transfer reactions can occur in the presence of an intermediate electron acceptor.1,3 INT is commonly used to measure the respiratory activity of microorganisms in a variety of contexts.1,2

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/16073

WARNING: This product is for laboratory research only; not for administration to humans. Not for human or veterinary diagnostic or therapeutic use.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to your institution.

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