

# Product Information



## Diphenyleneiodonium (chloride)

Item No. 81050

CAS Registry No.: 4673-26-1

Formal Name: dibenziodonium chloride

Synonym: DPI

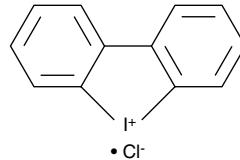
MF: C<sub>12</sub>H<sub>8</sub>I • Cl

FW: 314.6

Purity: ≥99%

Stability: ≥1 year at room temperature

Supplied as: A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that diphenyleneiodonium (DPI) (chloride) be stored as supplied at room temperature. It should be stable for at least one year.

DPI (chloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the DPI (chloride) in an organic solvent purged with an inert gas. DPI (chloride) is soluble in organic solvents such as DMSO. The solubility of DPI (chloride) in DMSO is approximately 500 µg/ml.

DPI (chloride) is sparingly soluble in aqueous buffers. If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

DPI is an irreversible inhibitor of iNOS and eNOS with IC<sub>50</sub> values of 50 nM and 0.3 µM, respectively.<sup>1</sup> This inhibition is potent, irreversible, and time and temperature dependent.<sup>1</sup> NADPH, NADP<sup>+</sup>, and 2'5'-ADP block the inhibitory action of DPI. Similarly, FAD or FMN protect NOS from inhibition by DPI.<sup>1</sup>

### Reference

1. Stuehr, D.J., Fasehun, O.A., Kwon, N.S., *et al.* Inhibition of macrophage and endothelial cell nitric oxide synthase by diphenyleneiodonium and its analogs. *FASEB J.* **5**, 98-103 (1991).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/81050](http://www.caymanchem.com/catalog/81050)

**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 *via* email to your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications** at the time of delivery.

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