

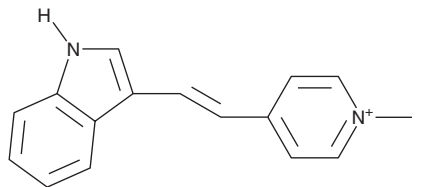
# PRODUCT INFORMATION



## F16

Item No. 10022

**CAS Registry No.:** 36098-33-6  
**Formal Name:** 4-[(1E)-2-(1H-indol-3-yl)ethenyl]-1-methyl-pyridinium iodide  
**MF:** C<sub>16</sub>H<sub>15</sub>N<sub>2</sub> • I  
**FW:** 362.2  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 443 nm



### Laboratory Procedures

For long term storage, we suggest that F16 be stored as supplied at -20°C. It should be stable for at least two years.

F16 is supplied as a crystalline solid. A stock solution may be made by dissolving the F16 in an organic solvent purged with an inert gas. F16 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of F16 in these solvents is approximately 500 µg/ml, 20 mg/ml, and 25 mg/ml, respectively. F16 will be stable for at least six months in these solvents if stored at -20°C.

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 F16 can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of F16 in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

F16 is a small, cationic, lipophilic molecule which binds preferentially to mitochondrial membranes and disrupts their function.<sup>1</sup> F16 was discovered in high throughput screens for tumor inhibitors, where it was found to induce apoptosis in HER-1/EGFR-expressing breast carcinoma cell lines. In addition to being a potential antitumor agent, F16 is an easily visualized fluorescent molecule which can also be used to visualize mitochondria under confocal microscopy. The mechanism of apoptosis induction by F16 is believed to be through disruption of the mitochondrial transmembrane potential.<sup>1</sup>

### Reference

1. Fantin, V.R., Berardi, M.J., Scorrano, L., *et al.* A novel mitochondriotoxic small molecule that selectively inhibits tumor cell growth. *Cancer Cell* 2, 29-42 (2002).

#### 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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