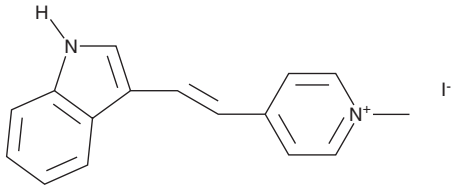
PRODUCT INFORMATION

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:	$C_{16}H_{15}N_2 \bullet I$
FW:	362.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 443 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

F16 is supplied as a crystalline solid. A stock solution may be made by dissolving the F16 in the solvent of choice, which should be 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 0.5, 20, and 25 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 F16 can be prepared by directly dissolving the crystalline solid 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.[1] 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.[1]

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(1)**, 29-42 (2002).

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