

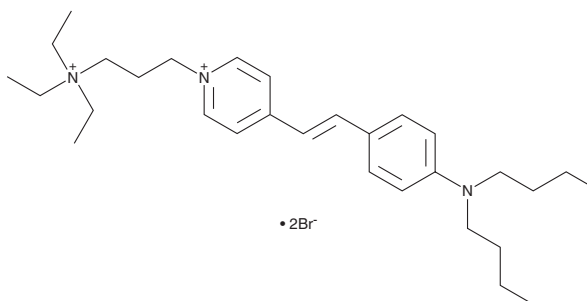
PRODUCT INFORMATION



FM™1-43

Item No. 42094

CAS Registry No.: 149838-22-2
Formal Name: 4-[2-[4-(dibutylamino)phenyl]ethenyl]-1-[3-(triethylammonio)propyl]-pyridinium, dibromide
MF: C₃₀H₄₉N₃ • 2Br
FW: 611.5
UV/Vis.: λ_{max}: 516 nm
Ex./Em.: 485/535 nm
Supplied as: A 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

FM™1-43 is supplied as a solid. A stock solution may be made by dissolving the FM™1-43 in the solvent of choice, which should be purged with an inert gas. FM™1-43 is soluble (≥10 mg/ml) in DMSO and ethanol.

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 FM™1-43 can be prepared by directly dissolving the solid in aqueous buffers. FM™1-43 is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

FM™1-43 is a cationic styryl pyridinium dye and an inhibitor of mechanosensitive ion channels.^{1,2} It reversibly binds to, but does not permeate, cell membranes and has been used to monitor synaptogenesis and reinnervation, endocytosis, and vacuole formation *in vitro*. FM™1-43 (0.6-15 μM) inhibits rapidly and slowly adapting mechanically activated currents in both capsaicin-insensitive and capsaicin-sensitive isolated rat dorsal root ganglion neurons.² It displays excitation/emission maxima of 485/535 nm, respectively.¹

References

1. Cochilla, A.J., Angleson, J.K., and Betz, W.J. Monitoring secretory membrane with FM1-43 fluorescence. *Annu. Rev. Neurosci.* **22**, 1-10 (1999).
2. Drew, L.J. and Wood, J.N. FM1-43 is a permeant blocker of mechanosensitive ion channels in sensory neurons and inhibits behavioural responses to mechanical stimuli. *Mol. Pain* **3**, 1 (2007).

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.

WARRANTY AND LIMITATION OF REMEDY

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