

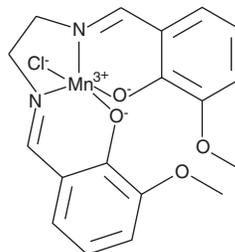
# PRODUCT INFORMATION



## EUK 134

Item No. 10006329

**CAS Registry No.:** 81065-76-1  
**Formal Name:** chloro[[2,2'-[1,2-ethanediylbis[(nitrilo-κN)methylidyne]]bis[6-methoxyphenolato-κO]]]-manganese  
**MF:** C<sub>18</sub>H<sub>18</sub>ClMnN<sub>2</sub>O<sub>4</sub>  
**FW:** 416.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 234, 328 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥1 year



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

### Laboratory Procedures

EUK 134 is supplied as a crystalline solid. A stock solution may be made by dissolving the EUK 134 in the solvent of choice, which should be purged with an inert gas. EUK 134 is soluble in the organic solvent ethanol at a concentration of approximately 1 mg/ml.

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 EUK 134 can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of EUK 134 in PBS (pH 7.2) is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Synthetic manganese-porphyrin complexes have been documented to act as scavengers for oxidative species such as peroxynitrite, superoxide, and hydrogen peroxide. EUK 134 is a salen-manganese complex that has been modified to increase its catalase activity while retaining SOD activity. EUK 134 consumes hydrogen peroxide with an initial reaction rate of 234 μM/min *in vitro*.<sup>1</sup> EUK 134 is protective in a rat stroke model, employing middle cerebral artery ligation. At 2.5 mg/kg, rats treated with EUK 134 showed reduced infarct volume by more than 80%. EUK 134 at 10 mg/kg also significantly attenuates brain damage in rats following systemic administration of kainic acid.<sup>2</sup>

### References

1. Baker, K., Marcus, C.B., Huffman, K., *et al.* Synthetic combined superoxide dismutase/catalase mimetics are protective as a delayed treatment in a rat stroke model: A key role for reactive oxygen species in ischemic brain injury. *J. Pharmacol. Exp. Ther.* **284**(1), 215-221 (1998).
2. Rong, Y., Doctrow, S.R., Tocco, G., *et al.* EUK-134, a synthetic superoxide dismutase and catalase mimetic, prevents oxidative stress and attenuates kainate-induced neuropathology. *Proc. Natl. Acad. Sci. USA* **96**, 9897-9902 (1999).

#### 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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