

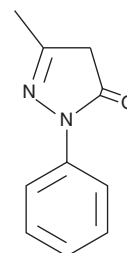
PRODUCT INFORMATION



MCI-186

Item No. 13320

CAS Registry No.: 89-25-8
Formal Name: 2,4-dihydro-5-methyl-2-phenyl-3H-pyrazol-3-one
Synonyms: Edaravone, NSC 2629
MF: C₁₀H₁₀N₂O
FW: 174.2
Purity: ≥98%
UV/Vis.: λ_{max}: 244 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



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

Laboratory Procedures

MCI-186 is supplied as a crystalline solid. A stock solution may be made by dissolving the MCI-186 in the solvent of choice, which should be purged with an inert gas. MCI-186 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MCI-186 in these solvents is approximately 15, 30, and 50 mg/ml, respectively.

MCI-186 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MCI-186 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MCI-186 has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MCI-186 is a free radical scavenger with diverse protective effects *in vivo*. Most notably, it reduces damage due to ischemia-reperfusion injury in lung, liver, and brain in animal models of transplant, infection, traumatic brain injury, and stroke.¹⁻⁴ MCI-186 provides these protective effects, at least in part, by reducing reactive oxygen species, inhibiting apoptosis, and blocking nonenzymatic peroxidation and lipoxygenase activity.^{3,5,6}

References

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3. Gao, Y., Ding, X., Xu, S., *et al.* Neuroprotective effects of edaravone on early brain injury in rats after subarachnoid hemorrhage. *Chin. Med. J.* **122(16)**, 1935-1940 (2009).
4. Kikuchi, K., Kawahara, K., Tancharoen, S., *et al.* The free radical scavenger edaravone rescues rats from cerebral infarction by attenuating the release of high-mobility group box-1 in neuronal cells. *J. Pharmacol. Exp. Ther.* **329(3)**, 865-874 (2009).
5. Rajesh, K.G., Sasaguri, S., Suzuki, R., *et al.* Antioxidant MCI-186 inhibits mitochondrial permeability transition pore and upregulates Bcl-2 expression. *Am. J. Physiol. Heart Circ. Physiol.* **285**, H2171-H2178 (2003).
6. Abe, K., Yuki, S., and Kogure, K. Strong attenuation of ischemic and postischemic brain edema in rats by a novel free radical scavenger. *Stroke* **19**, 480-485 (1988).

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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