

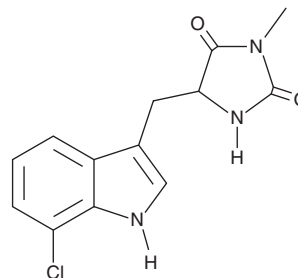
PRODUCT INFORMATION



(±)-Necrostatin-2

Item No. 20924

CAS Registry No.: 852391-15-2
Formal Name: 5-[(7-chloro-1H-indol-3-yl)methyl]-3-methyl-2,4-imidazolidinedione
Synonyms: 7-Cl-O-Nec-1, 7-Cl-O-Necrostatin-1, 7-chloro-O-Nec-1, Nec-1s, (±)-Nec-2, Necrostatin-1s
MF: C₁₃H₁₂ClN₃O₂
FW: 277.7
Purity: ≥98%
UV/Vis.: λ_{max}: 222 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

(±)-Necrostatin-2 is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-necrostatin-2 in the solvent of choice, which should be purged with an inert gas. (±)-Necrostatin-2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of (±)-necrostatin-2 in these solvents is approximately 3, 20, and 14 mg/ml, respectively.

(±)-Necrostatin-2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (±)-necrostatin-2 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. (±)-Necrostatin-2 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(±)-Necrostatin-2 is a racemic mixture that inhibits receptor-interacting protein kinase 1 (RIPK1) autophosphorylation *in vitro* in a dose-dependent manner.¹ Treatment with 6 mg/kg/day of (±)-necrostatin-2 prevents TNF-induced mortality in a murine model of systemic inflammatory response syndrome (SIRS). (±)-Necrostatin-2 decreases irradiation-induced lactate dehydrogenase (LDH) release and cell death in murine embryonic Cyt c^{-/-} cells.² It also prevents angiotensin II-induced elastin degradation and aortic inflammation in a murine abdominal aortic aneurism (AAA) model at a dose of 1.6 mg/kg/day.

References

1. Takahashi, N., Duprez, L., Grootjans, S., *et al.* Necrostatin-1 analogues: Critical issues on the specificity, activity and *in vivo* use in experimental disease models. *Cell Death Dis.* **3(11)**, e437 (2012).
2. Huang, Z., Epperly, M., Watkins, S.C., *et al.* Necrostatin-1 rescues mice from lethal irradiation. *Biochim. Biophys. Acta* **1862(4)**, 850-856 (2016).

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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