

# PRODUCT INFORMATION



## Necrox-5 (methanesulfonate)

Item No. 17278

**CAS Registry No.:** 1383718-29-3  
**Formal Name:** 5-[(1,1-dioxido-4-thiomorpholinyl)methyl]-2-phenyl-N-[(tetrahydro-2H-pyran-4-yl)methyl]-1H-indol-7-amine, dimethanesulfonate

**Synonyms:** Necrosis Inhibitor 5, NecroX-5

**MF:** C<sub>25</sub>H<sub>31</sub>N<sub>3</sub>O<sub>3</sub>S • 2CH<sub>4</sub>O<sub>3</sub>S

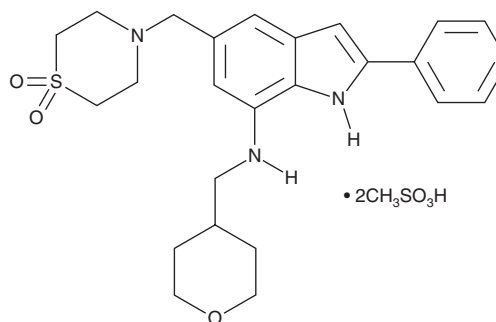
**FW:** 645.8

**Purity:** ≥85%

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥2 years



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

### Laboratory Procedures

Necrox-5 (methanesulfonate) is supplied as a crystalline solid. A stock solution may be made by dissolving the necrox-5 (methanesulfonate) in the solvent of choice. Necrox-5 (methanesulfonate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of necrox-5 (methanesulfonate) in these solvents is approximately 0.25, 1, and 10 mg/ml, respectively.

Necrox-5 (methanesulfonate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, necrox-5 (methanesulfonate) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Necrox-5 (methanesulfonate) has a solubility of approximately 0.1 mg/ml in a 1:6 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Necrox-5 is a cell permeable inhibitor of necrosis that also demonstrates strong mitochondrial reactive oxygen species and ONOO<sup>-</sup> scavenging activity.<sup>1</sup> It predominantly localizes in mitochondria, selectively blocking oxidative stress-induced necrotic cell death (0.1 μM necrox-5 inhibits ~50% cell death in H9C2 cells exposed to 400 μM *t*-BHP).<sup>1</sup> This compound has been shown to protect cells from oxidative stress, hypoxia, and cold shock *in vitro*, as well as carbon tetrachloride-induced liver injury and chronic liver fibrosis in rodent models.<sup>1</sup>

### Reference

1. Kim, H.J., Koo, S.Y., Ahn, B.-H., *et al.* NecroX as a novel class of mitochondrial reactive oxygen species and ONOO<sup>-</sup> scavenger. *Arch. Pharm. Res.* **33**(11), 1813-1823 (2010).

#### 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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