

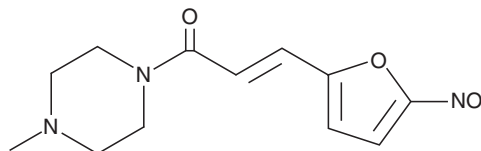
# PRODUCT INFORMATION



**NSC 59984**

Item No. 19919

**CAS Registry No.:** 803647-40-7  
**Formal Name:** 1-(4-methyl-1-piperazinyl)-3-(5-nitro-2-furanyl)-2-propen-1-one  
**MF:** C<sub>12</sub>H<sub>15</sub>N<sub>3</sub>O<sub>4</sub>  
**FW:** 265.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 237, 276, 350 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

NSC 59984 is supplied as a crystalline solid. A stock solution may be made by dissolving the NSC 59984 in the solvent of choice, which should be purged with an inert gas. NSC 59984 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of NSC 59984 in these solvents is approximately 5, 10, and 25 mg/ml, respectively.

NSC 59984 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

## Description

NSC 59984 is a reactivator of p53 that restores wild-type p53 signaling by activating p73-dependent apoptosis in mutant p53-expressing colon cancer cells.<sup>1</sup> It is reported to induce cell death in colon cancer cells (EC<sub>50</sub> = 8.38 μM in p53-null HCT116 cells) without evident toxicity toward normal cells.<sup>1</sup> NSC 59984 has been shown to induce p53 mutant protein degradation via MDM2-mediated ubiquitination.<sup>1</sup>

## Reference

1. Zhang, S., Zhou, L., Hong, B., *et al.* Small-molecule NSC59984 restores p53 pathway signaling and antitumor effects against colorectal cancer via p73 activation and degradation of mutant p53. *Cancer Res.* **75(18)**, 3842-3852 (2015).

### 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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