

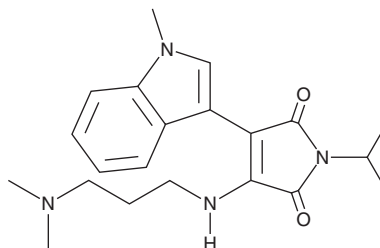
# PRODUCT INFORMATION



## IM-93

Item No. 28794

**CAS Registry No.:** 1173657-73-2  
**Formal Name:** 3-[[3-(dimethylamino)propyl]amino]-1-(1-methylethyl)-4-(1-methyl-1H-indol-3-yl)-1H-pyrrole-2,5-dione  
**MF:** C<sub>21</sub>H<sub>28</sub>N<sub>4</sub>O<sub>2</sub>  
**FW:** 368.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 226, 290 nm  
**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

IM-93 is supplied as a crystalline solid. A stock solution may be made by dissolving the IM-93 in the solvent of choice, which should be purged with an inert gas. IM-93 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of IM-93 in ethanol is approximately 1 mg/ml and approximately 20 mg/ml in DMSO and DMF.

IM-93 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IM-93 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. IM-93 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

IM-93 is a dual inhibitor of ferroptosis and NETosis.<sup>1</sup> It inhibits *tert*-butyl hydroperoxide- and erastin-induced ferroptosis in NIH3T3 cells (IC<sub>50</sub>s = 1.8 and 1.9 nM, respectively), as well as decreases NETosis and lipid peroxidation induced by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) in isolated human peripheral blood neutrophils when used at concentrations ranging from 1.6 to 25 μM. IM-93 also inhibits hydrogen peroxide-induced necrosis in HL-60 cells (IC<sub>50</sub> = 0.45 μM), but has no effect on necroptosis induced by Fas ligand in combination with Z-VAD-FMK and cycloheximide (Item No. 14126) in Jurkat cells or pyroptosis induced by *S. aureus* and *P. aeruginosa* in THP-1 cells when used at a concentration of 25 μM.

### Reference

1. Dodo, K., Kuboki, E., Shimizu, T., *et al.* Development of a water-soluble indolylmaleimide derivative IM-93 showing dual inhibition of ferroptosis and NETosis. *ACS Med. Chem. Lett.* **10**(9), 1272-1278 (2019).

#### 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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