# PRODUCT INFORMATION

## IM-93

*Item No. 28794*

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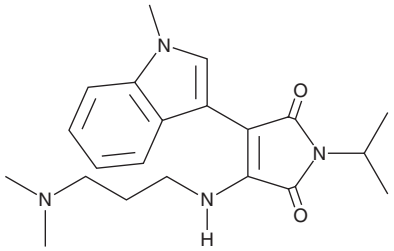
| **CAS Registry No.:** | 1173657-73-2 |
| **Formal Name:** | 3-[[3-(dimethylamino)propyl]amino]-1-(1-methylethyl)-4-(1-methyl-1H-indol-3-yl)-1H-pyrrole-2,5-dione |
| **MF:** | $C_{21}H_{28}N_4O_2$ |
| **FW:** | 368.5 |
| **Purity:** | ≥98% |
| **UV/Vis.:** | $\lambda_{max}$: 226, 290 nm |
| **Supplied 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.[1] It inhibits *tert*-butyl hydroperoxide- and erastin-induced ferroptosis in NIH3T3 cells ($IC_{50}$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 ($IC_{50}$ = 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).





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