

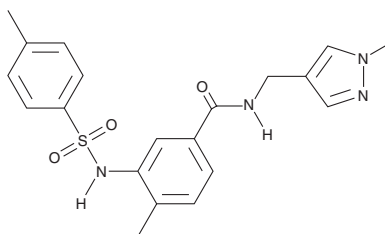
# PRODUCT INFORMATION



**S-72**

Item No. 39083

**CAS Registry No.:** 2446799-14-8  
**Formal Name:** 4-methyl-3-[[[4-methylphenyl]sulfonyl]amino]-N-[(1-methyl-1H-pyrazol-4-yl)methyl]-benzamide  
**MF:** C<sub>20</sub>H<sub>22</sub>N<sub>4</sub>O<sub>3</sub>S  
**FW:** 398.5  
**Purity:** ≥98%  
**Supplied as:** A 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

S-72 is supplied as a solid. A stock solution may be made by dissolving the S-72 in the solvent of choice, which should be purged with an inert gas. S-72 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of S-72 in ethanol is approximately 30 mg/ml and approximately 20 mg/ml in DMSO and DMF.

## Description

S-72 is an inhibitor of microtubule polymerization.<sup>1</sup> It inhibits microtubule polymerization in a cell-free assay when used at concentrations 1, 3, and 10 μM. S-72 reduces viability in MCF-7 and paclitaxel-resistant MCF-7/T breast cancer cells (IC<sub>50</sub>s = 15.64 and 26.32 nM, respectively). It inhibits migration and invasion, as well as the percentage of wound closure in a scratch assay, in MCF-7 and MCF-7/T cells when used at a concentration of 50 nM. S-72 (100 nM) induces cell cycle arrest at the G<sub>2</sub>/M phase in MCF-7/T cells, as well as induces apoptosis in those same cells. It also inhibits stimulator of interferon genes (STING) activation in MCF-7/T cells when used at a concentration of 100 nM. S-72 (15 mg/kg per day) inhibits tumor growth in MCF-7/T and MX-1/T mouse xenograft models of paclitaxel-resistant breast cancer.

## Reference

1. Hou, Z., Lin, S., Du, T., *et al.* S-72, a novel orally available tubulin inhibitor, overcomes paclitaxel resistance via inactivation of the STING pathway in breast cancer. *Pharmaceuticals (Basel)* **16**(5), 749 (2023).

### 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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