# **Product data sheet**



MedKoo Cat#: 407940				
Name: SSE15206				
CAS#: 1370046-40-4				
Chemical Formula: C <sub>19</sub> H <sub>21</sub> N <sub>3</sub> O <sub>3</sub> S				
Exact Mass: 371.1304				
Molecular Weight: 371.455				
Product supplied as:	Powder			
Purity (by HPLC):	$\geq 98\%$			
Shipping conditions	Ambient temperature			
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.			
-	In solvent: -80°C 3 months; -20°C 2 weeks.			



### 1. Product description:

SSE15206 is a microtubule depolymerizing agent that overcomes multidrug resistance. SSE15206 has potent antiproliferative activities in cancer cell lines of different origins and overcomes resistance to microtubule-targeting agents. Treatment of cells with SSE15206 causes aberrant mitosis resulting in G2/M arrest due to incomplete spindle formation, a phenotype often associated with drugs that interfere with microtubule dynamics. SSE15206 inhibits microtubule polymerization both in biochemical and cellular assays by binding to colchicine site in tubulin as shown by docking and competition studies.

#### 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

#### 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	112.0	301.52

#### 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.69 mL	13.46 mL	26.92 mL
5 mM	0.54 mL	2.69 mL	5.38 mL
10 mM	0.27 mL	1.35 mL	2.69 mL
50 mM	0.05 mL	0.27 mL	0.54 mL

#### 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

## 6. Recommended literature which reported protocols for in vitro and in vivo study

- In vitro study
- Ma L, Lei J, Chen H, Huang R, Su T, Feng J, Sun Q. Structural insight into SSE15206 in complex with tubulin provides a rational design for pyrazolinethioamides as tubulin polymerization inhibitors. Future Med Chem. 2022 Jun;14(11):785-794. doi: 10.4155/fmc-2021-0124. Epub 2022 May 4. PMID: 35506429.
- Manzoor S, Bilal A, Khan S, Ullah R, Iftikhar S, Emwas AH, Alazmi M, Gao X, Jawaid A, Saleem RSZ, Faisal A. Identification and characterization of SSE15206, a microtubule depolymerizing agent that overcomes multidrug resistance. Sci Rep. 2018 Feb 19;8(1):3305. doi: 10.1038/s41598-018-21642-0. Erratum in: Sci Rep. 2018 Apr 18;8(1):6427. PMID: 29459693; PMCID: PMC5818492.

In vivo study

To be determined

### 7. Bioactivity

Biological target:

SSE15206 is a microtubule polymerization inhibitor (GI50 = 197 nM in HCT116 cells).

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In vitro activity

This study describes the synthesis and characterization of SSE15206. It can overcome drug resistance, including multidrug resistance, to MTAs. SSE15206 inhibits microtubule polymerization to induce apoptosis in various cancer cells. Importantly, it inhibits proliferation of paclitaxel-resistant cells, including MDR-1 expressing multidrug resistant cells, indicating that it is not affected by P-glycoprotein (Pgp).

Reference: Sci Rep. 2018; 8: 3305. https://pubmed.ncbi.nlm.nih.gov/29459693/

In vivo activity

#### To be determined

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.