

# PRODUCT INFORMATION

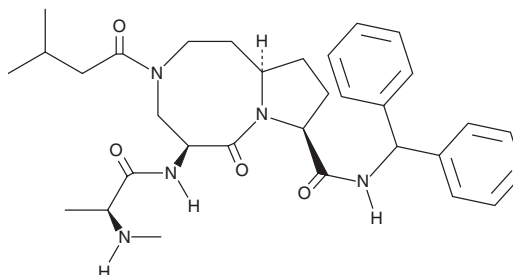


## AT-406

Item No. 19929

**CAS Registry No.:** 1071992-99-8  
**Formal Name:** (5S,8S,10aR)-N-(diphenylmethyl) decahydro-5-[[[(2S)-2-(methylamino)-1-oxopropyl]amino]-3-(3-methyl-1-oxobutyl)-6-oxo-pyrrolo[1,2-a][1,5] diazocine-8-carboxamide

**Synonym:** SM-406  
**MF:** C<sub>32</sub>H<sub>43</sub>N<sub>5</sub>O<sub>4</sub>  
**FW:** 561.7  
**Purity:** ≥95%  
**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

AT-406 is supplied as a crystalline solid. A stock solution may be made by dissolving the AT-406 in the solvent of choice, which should be purged with an inert gas. AT-406 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of AT-406 in these solvents is approximately 20, 25, and 12 mg/ml, respectively.

AT-406 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AT-406 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AT-406 has a solubility of approximately 0.33 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

AT-406 is an orally bioavailable Smac/DIABLO mimetic and antagonist of the inhibitor of apoptosis proteins (IAPs). It binds to XIAP, cIAP1, and cIAP2 proteins with K<sub>i</sub> values of 66.4, 1.9, and 5.1 nM, respectively.<sup>1</sup> It has been shown to inhibit cancer cell growth in various human cancer cell lines and to induce apoptosis in xenograft tumors in mice.<sup>1,2</sup>

### References

1. Cai, Q., Sun, H., Peng, Y., *et al.* A potent and orally active antagonist (SM-406/AT-406) of multiple inhibitor of apoptosis proteins (IAPs) in clinical development for cancer treatment. *J. Med. Chem.* **54**(8), 2714-2726 (2011).
2. Brunckhorst, M. K., Lerner, D., Wang, S., *et al.* AT-406, an orally active antagonist of multiple inhibitor of apoptosis proteins, inhibits progression of human ovarian cancer. *Cancer Biol. Ther.* **13**(9), 804-811 (2012).

#### 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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