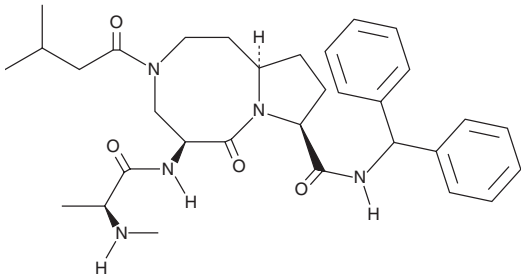
PRODUCT INFORMATION

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:	$C_{32}H_{43}N_5O_4$
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_i values of 66.4, 1.9, and 5.1 nM, respectively.[1] It has been shown to inhibit cancer cell growth in various human cancer cell lines and to induce apoptosis in xenograft tumors in mice.[1,2]

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).

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