

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



Lieferung & Zahlungsart siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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# **PRODUCT** INFORMATION



**RA-9** 

Item No. 40838

CAS Registry No.:	919091-63-7			
Formal Name:	3E,5E-bis[(4-nitrophenyl)		Н	
	methylene]-4-piperidinone	0.11		NO
MF:	C <sub>19</sub> H <sub>15</sub> N <sub>3</sub> O <sub>5</sub>	O <sub>2</sub> N		
FW:	365.3			
Purity:	≥98%		$\wedge$	
Supplied as:	A solid	~	~ Д ~	~
Storage:	-20°C		0	
Stability:	≥4 years			
		100 1 11 11		

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

#### Laboratory Procedures

RA-9 is supplied as a solid. A stock solution may be made by dissolving the RA-9 in the solvent of choice, which should be purged with an inert gas. RA-9 is sparingly soluble (1-10 mg/ml) in DMSO.

#### Description

RA-9 is an inhibitor of deubiquitinating enzymes.<sup>1</sup> It inhibits ubiquitin C-terminal hydrolase L1 (UCH-L1), UCH-L3, and ubiquitin-specific protease 8 (USP8) in a cell-free assay when used at a concentration of 10  $\mu$ M, as well as USP5 in a reporter assay at the same concentration. RA-9 (10  $\mu$ M) also inhibits the 26S proteasome, but not the 20S proteasome, in a reporter assay using HeLa cervical cancer cells. It increases the levels of polyubiquitinated proteins in HeLa and TOV-21G ovarian cancer cells when used at a concentration of 5  $\mu$ M. RA-9 (10  $\mu$ M) induces cell cycle arrest at the S and G<sub>2</sub>/M phases in HeLa cells. It decreases the viability of nine cancer cell lines with IC<sub>50</sub> values ranging from 1.64 to 12.49  $\mu$ M. In vivo, RA-9 (5 mg/kg every other day) increases survival and decreases tumor and ascitic fluid mass in an ES-2 ovarian cancer mouse xenograft model.<sup>2</sup>

#### References

- 1. Issaenko, O.A., and Amerik, A.Y. Chalcone-based small-molecule inhibitors attenuate malignant phenotype via targeting deubiquitinating enzymes. Cell Cycle 11(9), 1804-1817 (2012).
- 2. Coughlin, K., Anchoori, R., Iizuka, Y., et al. Small-molecule RA-9 inhibits proteasome-associated DUBs and ovarian cancer in vitro and in vivo via exacerbating unfolded protein responses. Clin. Cancer Res. 20(12), 3174-3186 (2014).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

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.

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