



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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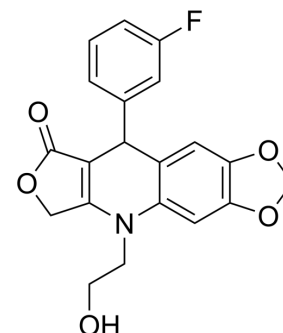
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## SU056

<b>Cat. No.:</b>	HY-150231		
<b>CAS No.:</b>	2376580-08-2		
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>16</sub> FNO <sub>5</sub>		
<b>Molecular Weight:</b>	369.34		
<b>Target:</b>	YB-1		
<b>Pathway:</b>	Cell Cycle/DNA Damage		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



## SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 50 mg/mL (135.38 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.7075 mL	13.5377 mL	27.0753 mL
		5 mM	0.5415 mL	2.7075 mL	5.4151 mL
10 mM		0.2708 mL	1.3538 mL	2.7075 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 50% PEG300 &gt;&gt; 50% saline Solubility: 5 mg/mL (13.54 mM); Suspended solution; Need ultrasonic</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: 2.5 mg/mL (6.77 mM); Suspended solution; Need ultrasonic</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.77 mM); Clear solution</li> </ol>				

## BIOLOGICAL ACTIVITY

<b>Description</b>	SU056 is a YB-1 inhibitor. SU056 induces cell-cycle arrest, apoptosis, and inhibits cell migration in ovarian cancer cells. SU056 interacts with YB-1 and inhibits and its associated downstream proteins and pathways. SU056 can enhance the cytotoxic effects of Paclitaxel (HY-B0015) <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	YB-1 <sup>[1]</sup>
<b>In Vitro</b>	SU056 (0-10 μM approximately, 48 h) inhibits cell growth in OVCAR3/4/5/8, SKOV3 and ID8 cells <sup>[1]</sup> ☒

SU056 (1  $\mu$ M, 5-8 days) inhibits colony formation in a dose-dependent manner in OVCAR-8 and ID8 cells<sup>[1]</sup>  
 SU056 (1-5  $\mu$ M, 6 h) arrests OVCAR8, SKOV3, and ID8 cells in the sub-G1 and G1 phases<sup>[1]</sup>.  
 SU056 (0-1  $\mu$ M, 12 h) inhibits cell migration in OVCAR8, SKOV3, and ID8 cells<sup>[1]</sup>.  
 SU056 (0-5  $\mu$ M, 24 h) induces apoptotic cell death in OVCAR8, SKOV3, and ID8 cells<sup>[1]</sup>.  
 SU056 (1-5  $\mu$ M, 12 h) inhibited the expression of YB-1, TMSB10, SUMO2, and PMSB2 proteins in OVCAR8 cells<sup>[1]</sup>.  
 SU056 (0.1, 0.5, and 1  $\mu$ M, 48 h) enhances the cytotoxic effects of Paclitaxel (HY-B0015) (0.1, 0.5, and 1 nM)<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### Cell Viability Assay<sup>[1]</sup>

Cell Line:	OVCAR3/4/5/8, SKOV3 and ID8 cells
Concentration:	0-10 $\mu$ M approximately
Incubation Time:	48 h
Result:	Inhibited cell growth with IC <sub>50</sub> values of 1.27, 6.8, 4.33, 3.18, 1.73, 3.75 $\mu$ M.

#### Cell Migration Assay <sup>[1]</sup>

Cell Line:	OVCAR8, SKOV3, and ID8 cells
Concentration:	0, 0.5, 1 $\mu$ M
Incubation Time:	12 h
Result:	Dose-dependently inhibited cell migration.

#### Western Blot Analysis<sup>[1]</sup>

Cell Line:	OVCAR8 cell
Concentration:	1-5 $\mu$ M
Incubation Time:	12 h
Result:	Dose-dependently inhibited the YB-1, TMSB10, SUMO2, and PMSB2 proteins.

#### In Vivo

SU056 (20 mg/kg, i.p.) inhibits tumor growth in mice implanted with ID8 cells<sup>[1]</sup>.  
 SU056 (10 mg/kg, i.p., daily) combined with Paclitaxel (HY-B0015) (5 mg/kg, weekly, i.p.) shows a much greater reduction in OC tumor growth in immunodeficiency mice implanted with OVCAR8 OC tumors<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57BL/6 mice implanted (s.c.) with luciferase-expressing ID8 cells <sup>[1]</sup>
Dosage:	20 mg/kg
Administration:	Intraperitoneal injection (i.p.)
Result:	Reduced the tumor weight by 2-fold, and is well-tolerated. Reduced the lung metastases. Inhibited YB-1 expression and downstream MDR1 (IHC assay of tumor sample).

## REFERENCES

[1]. Tailor D, et al. Y box binding protein 1 inhibition as a targeted therapy for ovarian cancer. Cell Chem Biol. 2021 Aug 19;28(8):1206-1220.e6.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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