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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

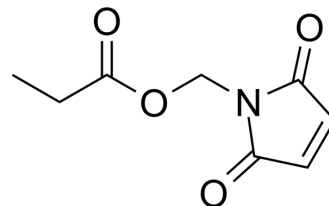
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

MIRA-1

Cat. No.:	HY-108639		
CAS No.:	72835-26-8		
Molecular Formula:	C ₈ H ₉ NO ₄		
Molecular Weight:	183.16		
Target:	MDM-2/p53; Apoptosis		
Pathway:	Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (545.97 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		5.4597 mL	27.2985 mL	54.5971 mL
		5 mM		1.0919 mL	5.4597 mL	10.9194 mL
		10 mM		0.5460 mL	2.7299 mL	5.4597 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (13.65 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (13.65 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (13.65 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	MIRA-1 is a maleimide analogue. MIRA-1 can induce apoptosis in mutant p53 cells via restoration of p53-dependent transcriptional transactivation. MIRA-1 has anticancer activity ^[1] .
IC ₅₀ & Target	IC ₅₀ : 10 μM (Saos-2 His273) ^[1]
In Vitro	MIRA-1 suppresses growth of Saos-2-His273 cells expressing mutant p53^[1]. MIRA-1 (25 μM; 48 hours) inhibits cell growth in a mutant p53-dependent manner^[1].

MIRA-1 (5 μ M; 14 days) dramatically reduces the number of colonies formed by His273-expressing Saos-2 cells, but is much less efficient in inhibiting p53-null Saos-2 cells^[1].

MIRA-1 (10 μ M; 48 hours) causes a substantial increase in the fraction of Saos-2 and Saos-2-His273 cells with a sub-G1 DNA content in the presence of mutant p53^[1].

MIRA-1 (5 and 10 μ M; 24 hours) induces EGFP expression, MDM2 and Bax in SKOV-His175 cells^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay

Cell Line:	Saos-2-His273, H1299-His175, SKOV-His175 and SKOV-His273 ^[1]
Concentration:	25 μ M
Incubation Time:	48 hours
Result:	Inhibited cell growth in a mutant p53-dependent manner, with survival rate of 18.5~39% in no doxycycline and 71.5~87.5% in doxycycline.

Apoptosis Analysis

Cell Line:	Saos-2 and Saos-2-His273 cells ^[1]
Concentration:	10 μ M
Incubation Time:	48 hours
Result:	Caused a substantial increase in the fraction of cells with a sub-G1 DNA content in the presence of mutant p53.

REFERENCES

[1]. Bykov VJ, et al. Reactivation of mutant p53 and induction of apoptosis in human tumor cells by maleimide analogs [published correction appears in J Biol Chem. 2017 Dec 1;292(48):19607]. J Biol Chem. 2005;280(34):30384-30391.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA