



SZABO SCANDIC

Part of Europa Biosite

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

Quellenstraße 110, A-1100 Wien

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

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

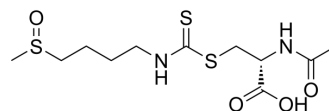
mail@szabo-scandic.com

www.szabo-scandic.com

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

DL-Sulforaphane N-acetyl-L-cysteine

Cat. No.:	HY-132242		
CAS No.:	334829-66-2		
Molecular Formula:	C ₁₁ H ₂₀ N ₂ O ₄ S ₃		
Molecular Weight:	340.48		
Target:	HDAC; Apoptosis; Drug Metabolite		
Pathway:	Cell Cycle/DNA Damage; Epigenetics; Apoptosis; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (29.37 mM; Need ultrasonic and warming)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.9370 mL	14.6852 mL	29.3703 mL
5 mM	0.5874 mL	2.9370 mL	5.8741 mL
10 mM	0.2937 mL	1.4685 mL	2.9370 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

DL-Sulforaphane N-acetyl-L-cysteine (SFN-NAC) is an orally active HDAC inhibitor and metabolite of sulforaphane (HY-13755) with longer half-life and better blood-brain barrier permeability. DL-Sulforaphane N-acetyl-L-cysteine activates autophagy-mediated downregulation of α -tubulin expression through the ERK pathway and can be used in cancer research^{[1][2]}.

In Vitro

SFN-NAC (24 h) decreases cell viability, with IC₅₀ values of 60.08 μ M for HA, 35.20 μ M for U87MG, 39.11 μ M for U373MG, and 36.20 μ M for the U87/TR cells^[1].

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

Cell Cycle Analysis^[1]

Cell Line:	U87MG and U373MG cells
Concentration:	0, 30 μ M
Incubation Time:	24 h
Result:	Induced cell-cycle arrest in the G2/M phase and triggered apoptosis at the same time.

	Western Blot Analysis ^[1]	
	Cell Line:	U87MG and U373MG cells
	Concentration:	0, 10, 20, 30, 40, 50 μM
	Incubation Time:	24 h
	Result:	Activated ERK1/2 (Thr202/Tyr204), downregulated α-tubulin, and induced autophagy in a dose-dependent manner.
	Cell Viability Assay ^[1]	
	Cell Line:	HA, U87MG, U373MG and U87/TR cells
	Concentration:	0, 10, 20, 30, 40, 50, 60, 70, 80, 90 μM for HA and U87MG cells or 0, 10, 20, 30, 40, 50, 60 μM for U373MG and U87/TR cells
	Incubation Time:	24 h
	Result:	Decreased the cell viability of these cell lines in a dose-dependent manner.
In Vivo	SFN-NAC (10 μmol; 6 h; Oral gavage; single dose) significantly inhibits HDAC activity in mouse colon mucosa ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	mice ^[2]
	Dosage:	10 μmol
	Administration:	Oral gavage; 6 h; single dose
	Result:	Significantly inhibited HDAC activity in mouse colon mucosa.

REFERENCES

- [1]. Liu HJ, et al. Sulforaphane-N-Acetyl-Cysteine Induces Autophagy Through Activation of ERK1/2 in U87MG and U373MG Cells. *Cell Physiol Biochem*. 2018;51(2):528-542.
- [2]. Dashwood R H, et al. Dietary histone deacetylase inhibitors: from cells to mice to man[C]//Seminars in cancer biology. Academic Press, 2007, 17(5): 363-369.

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