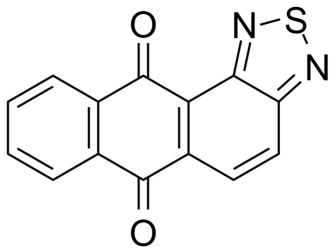
NSC745885

Cat. No.:	HY-119198
CAS No.:	4219-52-7
Molecular Formula:	$C_{14}H_6N_2O_2S$
Molecular Weight:	266.27
Target:	Apoptosis; Histone Methyltransferase
Pathway:	Apoptosis; Epigenetics
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 : < 1 mg/mL (insoluble or slightly soluble)

BIOLOGICAL ACTIVITY

Description	NSC745885 an effective anti-tumor agent, shows selective toxicity against multiple cancer cell lines but not normal cells. NSC745885 is an effective down-regulator of EZH2 via proteasome-mediated degradation. NSC745885 provides possibilities for the study of advanced bladder and oral squamous cell carcinoma (OSCC) cancers[1][2].
IC_{50} & Target	EZH2

In Vitro

NSC745885 (0.5-4 μM; 24, 48 or 72 hours) has a growth inhibitory or death-promoting effect on the SAS cells, it significantly decreases the densities of cultured cells when compared with untreated cells. The IC_{50} of NSC745885 is 0.85 μM after 72 hours' treatment[1].

NSC745885 (0.5-4 μM; 24 hours) increases annexin V positive cells in a dose-dependent manner, and the differences appears as a dose-dependent manner[1].

NSC745885 (0.5-2 μM; 24 or 48 hours) decreases XIAP protein levels and increases protein levels both as a dose-dependent manner in SAS cells[1].

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

Cell Viability Assay[1]

Cell Line:	SAS cells is obtained from a poorly differentiated human squamous cell carcinoma
Concentration:	0.5 μM, 1 μM, 1.5 μM, 2 μM, 4 μM
Incubation Time:	24, 48, or 72 hours
Result:	Decreases SAS cells growth as a time and dose-dependent manner.

Apoptosis Analysis[1]

Cell Line:	SAS cells is obtained from a poorly differentiated human squamous cell carcinoma
Concentration:	0.5 μM, 1 μM, 1.5 μM, 2 μM, 4 μM
Incubation Time:	24 hours
Result:	Decreases SAS cells growth as a time and dose-dependent manner.

Western Blot Analysis[1]

Cell Line:	SAS cells is obtained from a poorly differentiated human squamous cell carcinoma
Concentration:	0.5 μM, 1 μM, 1.5 μM, 2 μM
Incubation Time:	24 or 48 hours
Result:	Increased cleaved caspase-3 expression and decreased XIAP expression.

In Vivo

NSC745885 (intraperitoneal injection; 2 mg/kg; once daily; 10 days) treatment significantly reduces tumor size when compared with the vehicle control, and exhibits a higher safety than doxorubicin[1].

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

Animal Model:	Eight-week-old NOD/SCID (NOD.CB17 Prkdc^{scid}/J) mice[1]
Dosage:	2 mg/kg
Administration:	Intraperitoneal injection; 2 mg/kg; once daily; 10 days
Result:	Inhibited engrafted tumors growth in vivo.

REFERENCES

[1]. Chen YW, et al.A novel compound NSC745885 exerts an anti-tumor effect on tongue cancer SAS cells in vitro and in vivo.PLoS One. 2014 Aug 15;9(8):e104703.

[2]. Tang SH, et al. Pharmacologic down-regulation of EZH2 suppresses bladder cancer in vitro and in vivo.Oncotarget. 2014 Nov 15;5(21):10342-55.

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