Ischemin sodium

Cat. No.: HY-110315

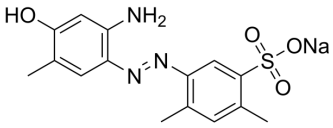
Molecular Formula: $C_{15}H_{16}N_3NaO_4S$

Molecular Weight: 357.36

Target: Apoptosis; MDM-2/p53; Epigenetic Reader Domain

Pathway: Apoptosis; Epigenetics

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 36 mg/mL (100.74 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7983 mL	13.9915 mL	27.9830 mL
	5 mM	0.5597 mL	2.7983 mL	5.5966 mL
	10 mM	0.2798 mL	1.3991 mL	2.7983 mL

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

BIOLOGICAL ACTIVITY

Description

Ischemin sodium is a CBP bromodomain inhibitor that inhibits p53 interaction with CBP and transcriptional activity in cells. Ischemin sodium salt inhibits p53-induced p21 activation with an IC_{50} value of 5 μM. Ischemin sodium salt also prevents apoptosis in ischemic cardiomyocytes. Ischemin sodium salt can be used in the study of cardiovascular diseases (such as myocardial ischemia)[1].

In Vitro

Ischemin sodium (50, 100 μM; 24 h) inhibits p53 activation on DNA damaging stress in U2OS cells[1].
Ischemin sodium (10 μM; 3 days) blocks apoptosis in cardiomyocytes by inhibiting caspase 3/7 activity[1].
Ischemin sodium salt inhibits p53 cellular signaling pathways in U2OS cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	U2OS cells
Concentration:	50, 100 μM
Incubation Time:	24 h

Result:	Inhibited the Doxorubicin-induced increased levels of p53 protein, its Ser15-phosphorylated (p53S15p) and Lys382-acetylated (p53K382ac).

Apoptosis Analysis[1]

Cell Line:	U2OS cells
Concentration:	10 μM
Incubation Time:	3 days
Result:	Functioned as a cellular protective agent againsted myocardial ischemic stress.

REFERENCES

[1]. Borah JC, et al. A small molecule binding to the coactivator CREB-binding protein blocks apoptosis in cardiomyocytes. Chem Biol. 2011 Apr 22;18(4):531-41.

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