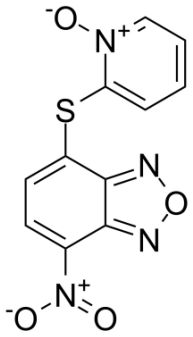
NSC 228155



Cat. No.:	HY-101084
CAS No.:	113104-25-9
Molecular Formula:	$C_{11}H_6N_4O_4S$
Molecular Weight:	290.25
Target:	EGFR; Histone Acetyltransferase; Epigenetic Reader Domain
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; 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 : 16 mg/mL (**55.12 mM;** Need ultrasonic)
H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.4453 mL	17.2265 mL	34.4531 mL
	5 mM	0.6891 mL	3.4453 mL	6.8906 mL
	10 mM	0.3445 mL	1.7227 mL	3.4453 mL

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

In Vivo

1. Add each solvent one by one: **10% DMSO >> 90% corn oil**
Solubility: ≥ 1.6 mg/mL (5.51 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NSC 228155 is an activator of **EGFR**, binds to the extracellular region of **EGFR** and enhance tyrosine phosphorylation of EGFR[1]. NSC 228155 is also a potent inhibitor of **KIX-KID** interaction, inhibits kinase-inducible domain (KID) from **CREB** and KID-interacting domain (KIX) from **CBP**, with an **IC_{50}** of 0.36 μM[2].

IC_{50} & Target	EGFR	KIX-KID 0.36 μM (IC_{50})

In Vitro

NSC 228155 (100 μM) enhances EGFR tyrosine phosphorylation via action of SOD1[1].
NSC 228155 (Compound 1) inhibits CREB- and VP16-CREB-mediated gene transcription in living HEK 293T cells with IC_{50}s of 2.09 and 6.14 μM, respectively[2].

NSC 228155 is not selective against CREB-mediated gene transcription in living HEK 293T cells[2].

CUSTOMER VALIDATION

- **Am J Cancer Res**. 2020 Mar 1;10(3):816-837.

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REFERENCES

[1]. Sakanyan V, et al. Activation of EGFR by small compounds through coupling the generation of hydrogen peroxide to stable dimerization of Cu/Zn SOD1. Sci Rep. 2016 Feb 17;6:21088.

[2]. Xie F, et al. Identification, synthesis and evaluation of substituted benzofurazans as inhibitors of CREB-mediated gene transcription. Bioorg Med Chem Lett. 2013 Oct 1;23(19):5371-5.

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