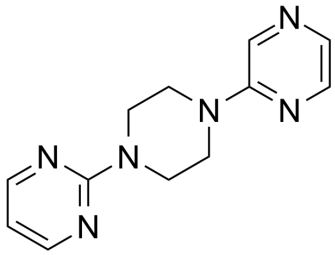
HIV-1 inhibitor-47

Cat. No.:	HY-148042
CAS No.:	137448-39-6
Molecular Formula:	$C_{12}H_{14}N_6$
Molecular Weight:	242.28
Target:	HIV
Pathway:	Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



BIOLOGICAL ACTIVITY

Description	HIV-1 inhibitor-47 is an inhibitor of HIV-1, and inhibits vif-dependent degradation of human APOBEC3G, with an IC_{50} value of 14.33 μM. HIV-1 inhibitor-47 also involves in derivatives of 1-(2-pyrimidinyl)piperazine synthesis, with potential antianxiety, antidepressant, and antipsychotic effect[1][2][3].
IC_{50} & Target	HIV (Vif-dependent degradation of human APOBEC3G)[1]
In Vitro	APOBEC3G (A3G), a host cytidine deaminase that can block HIV-1 replication and shows antiviral activity. However HIV-1 develops the ability to hijack the cellular ubiquitin/proteasome degradation pathway[1]. HIV-1 inhibitor-47 targets APOBEC3G-apolipoprotein B mRNA editing enzyme catalytic subunit 3G (human), and works on the HIV-1 Vif-APOBEC3G interaction[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Pubchem: 2-(4-(Pyrazin-2-yl)piperazin-1-yl)pyrimidine-BioAssay Results.

[2]. Becker Irwin. Preparation of derivatives of 1-(2-pyrimidinyl)piperazine as potential antianxiety, antidepressant, and antipsychotic agents. Journal of Heterocyclic Chemistry. 2008;45(4):1005-1022.

[3]. Iwatani Y, et al. HIV-1 Vif-mediated ubiquitination/degradation of APOBEC3G involves four critical lysine residues in its C-terminal domain. Proc Natl Acad Sci U S A. 2009 Nov 17;106(46):19539-44.

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