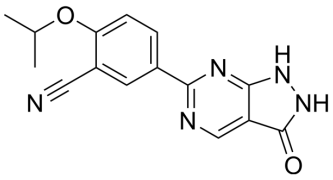
Xanthine oxidase-IN-4

Cat. No.:	HY-144303
CAS No.:	2642137-96-8
Molecular Formula:	$C_{15}H_{13}N_5O_2$
Molecular Weight:	295.3
Target:	Xanthine Oxidase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Xanthine oxidase-IN-4 (compound 19a) is an orally active and potent xanthine oxidase (XO) inhibitor, with an IC_{50} of 0.039 μM. Xanthine oxidase-IN-4 exhibits hypouricemic potency in potassium oxonate induced hyperuricemia rats. Xanthine oxidase-IN-4 can be used for hyperuricemia and gout research[1].
IC_{50} & Target	IC_{50}: 0.039 μM (xanthine oxidase)[1]
In Vitro	Xanthine oxidase-IN-4 (compound 19a) (1 nM-10 μM, 15 min) exhibits a strong XO inhibitory potency, with an IC_{50} of 0.039 μM, and Ki of 0.0037 μM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Xanthine oxidase-IN-4 (compound 19a) (SD rats, 10 mg/kg, Intragastrically, once) significantly reduces the serum concentration of uric acid[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Sprague-Dawley rats (Six weeks, male, 180-200g, six groups)[1]
Dosage:	10 mg/kg
Administration:	Intragastrically, once
Result:	Significantly reduced the serum concentration of uric acid, with AUC (uric acid, 1-5 h) of 44.3%.

REFERENCES

[1]. Zhao J, et al. Intramolecular hydrogen bond interruption and scaffold hopping of TMC-5 led to 2-(4-alkoxy-3-cyanophenyl)pyrimidine-4/5-carboxylic acids and 6-(4-alkoxy-3-cyanophenyl)-1,2-dihydro-3H-pyrazolo[3,4-d]pyrimidin-3-ones as potent pyrimidine-based xanthine oxidase inhibitors. Eur J Med Chem. 2022;229:114086.

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