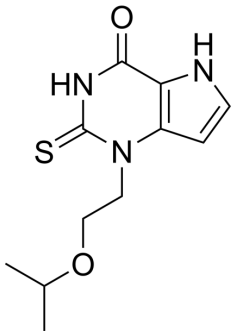
Verdiperstat

Cat. No.:	HY-17646
CAS No.:	890655-80-8
Molecular Formula:	$C_{11}H_{15}N_3O_2S$
Molecular Weight:	253.32
Target:	Glutathione Peroxidase
Pathway:	Apoptosis; Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (394.76 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.9476 mL	19.7379 mL	39.4758 mL
	5 mM	0.7895 mL	3.9476 mL	7.8952 mL
	10 mM	0.3948 mL	1.9738 mL	3.9476 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (9.87 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.87 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.87 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Verdiperstat (AZD3241) is a selective, irreversible and orally active myeloperoxidase (MPO) inhibitor, with an IC_{50} of 630 nM, and can be used in the research of neurodegenerative brain disorders.

IC_{50} & Target

IC50: 630 nM (Myeloperoxidase)[1]

In Vitro

Verdiperstat (AZD3241) is a myeloperoxidase (MPO) inhibitor, with an IC_{50} of 630 nM, and is used in the research of neurodegenerative brain disorders[1]. Verdiperstat (AZD3241) selectively and irreversibly inhibits myeloperoxidase, and may

involves reduction of oxidative stress leading to reduction of sustained neuroinflammation[2].

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

CUSTOMER VALIDATION

- J Immunother Cancer. 2023 Feb;11(2):e005837.
- Cancer Immunol Immunother. 2024 Feb 17;73(3):57.
- bioRxiv. 2020 Nov 24;2020.11.24.393405.

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REFERENCES

[1]. Johnström P, et al. Development of rapid multistep carbon-11 radiosynthesis of the myeloperoxidase inhibitor AZD3241 to assess brain exposure by PET microdosing. Nucl Med Biol. 2015 Jun;42(6):555-60.

[2]. Jucaite A, et al. Effect of the myeloperoxidase inhibitor AZD3241 on microglia: a PET study in Parkinson's disease. Brain. 2015 Sep;138(Pt 9):2687-700.

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