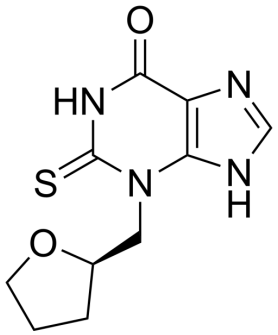
AZD5904

Cat. No.:	HY-111341
CAS No.:	618913-30-7
Molecular Formula:	$C_{10}H_{12}N_4O_2S$
Molecular Weight:	252.29
Target:	Glutathione Peroxidase
Pathway:	Apoptosis; Metabolic Enzyme/Protease
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 : 50 mg/mL (198.18 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.9637 mL	19.8185 mL	39.6369 mL
	5 mM	0.7927 mL	3.9637 mL	7.9274 mL
	10 mM	0.3964 mL	1.9818 mL	3.9637 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (8.24 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AZD5904 is a selective and irreversible inhibitor of human Myeloperoxidase (MPO) with an IC_{50} of 140 nM and has similar potency in mouse and rat.

IC_{50} & Target

IC50: 140 nM (human MPO)[1]

In Vitro

AZD5904 is a pselective and irreversible inhibitor of human Myeloperoxidase (MPO) with an IC_{50} of 140 nM and has similar potency in mouse and rat. It is 10 to 19-fold selective compare to the closely related lactoperoxidase and thyroid peroxidase; >70-fold to a broad panel of other enzymes, ion channels, and receptors[1].

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

CUSTOMER VALIDATION

- Redox Biol. 2023 Sep 27, 102905.
- Leukemia. 2022 Jun 27.
- Cancer Res. 2019 Oct 15;79(20):5191-5203.
- J Immunother Cancer. 2023 Feb;11(2):e005837.
- J Cell Mol Med. 2022 Feb 11.

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REFERENCES

[1]. Myeloperoxidase (MPO) inhibitor.

[2]. Tidén AK, Sjögren T, Svensson M, et al. 2-thioxanthines are mechanism-based inactivators of myeloperoxidase that block oxidative stress during inflammation. J Biol Chem. 2011;286(43):37578-37589.

[3]. Chai W, Aylor K, Liu Z, Gan LM, Michaëlsson E, Barrett E. Inhibiting myeloperoxidase prevents onset and reverses established high-fat diet-induced microvascular insulin resistance. Am J Physiol Endocrinol Metab. 2019;317(6):E1063-E1069.

[4]. Ramachandra CJA, Kp MMJ, Chua J, et al. Inhibiting cardiac myeloperoxidase alleviates the relaxation defect in hypertrophic cardiomyocytes. Cardiovasc Res. 2022;118(2):517-530.

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