

## **Bioactive Molecules, Building Blocks, Intermediates**

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# **Data Sheet**

Product Name:	Verdiperstat	
Cat. No.:	CS-0016916	
CAS No.:	890655-80-8	HI
Molecular Formula:	C11H15N3O2S	~
Molecular Weight:	253.32	5
Target:	Glutathione Peroxidase	
Pathway:	Metabolic Enzyme/Protease	
Solubility:	DMSO : 150 mg/mL (592.14 mM; Need ultrasonic)	$\sim$

## **BIOLOGICAL ACTIVITY:**

Verdiperstat (AZD3241) is a selective, irreversible and orally active **myeloperoxidase** inhibitor, with an **IC**<sub>50</sub> of 630 nM, and can be used in the research of neurodegenerative brain disorders. IC50 & Target: IC50: 630 nM (Myeloperoxidase)<sup>[1]</sup> **In Vitro**: Verdiperstat (AZD3241) is a myeloperoxidase (MPO) inhibitor, with an IC<sub>50</sub> of 630 nM, and is used in the research of neurodegenerative brain disorders<sup>[1]</sup>. Verdiperstat (AZD3241) selectively and irreversibly inhibits myeloperoxidase, and may involves reduction of oxidative stress leading to reduction of sustained neuroinflammation<sup>[2]</sup>.

## **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.

#### **CAIndexNames:**

4H-Pyrrolo[3,2-d]pyrimidin-4-one, 1,2,3,5-tetrahydro-1-[2-(1-methylethoxy)ethyl]-2-thioxo-

#### **SMILES:**

O=C(N1)C(NC=C2)=C2N(CCOC(C)C)C1=S

Caution: Product has not been fully validated for medical applications. For research use only.

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