

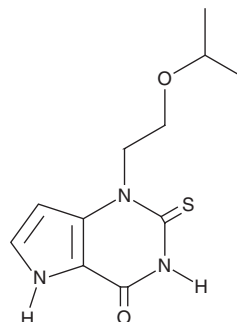
# PRODUCT INFORMATION



## Verdiperstat

Item No. 37333

**CAS Registry No.:** 890655-80-8  
**Formal Name:** 1,2,3,5-tetrahydro-1-[2-(1-methylethoxy)ethyl]-2-thioxo-4H-pyrrolo[3,2-d]pyrimidin-4-one  
**Synonyms:** AZD 3241, BHV 3421  
**MF:** C<sub>11</sub>H<sub>15</sub>N<sub>3</sub>O<sub>2</sub>S  
**FW:** 253.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 227, 259, 292 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Verdiperstat is supplied as a solid. A stock solution may be made by dissolving the verdiperstat in the solvent of choice, which should be purged with an inert gas. Verdiperstat is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of verdiperstat in ethanol is approximately 2 mg/ml and approximately 10 mg/ml in DMSO and DMF.

### Description

Verdiperstat is an irreversible inhibitor of myeloperoxidase (MPO; IC<sub>50</sub> = 630 nM), a redox enzyme involved in oxidative stress.<sup>1</sup> It is selective for MPO over a panel of 130 enzymes, transporters, and ion channels (IC<sub>50</sub>s = >50 μM for all).<sup>2</sup> Oral administration of verdiperstat (180 μmol/kg) reduces MPO expression, prevents an increase in neuronal loss, and prevents decreases in motor score and stride length in a PLP-αSYN transgenic mouse model of multiple system atrophy, a neurological disorder characterized by motor neuron degeneration and α-synuclein aggregation in the brain.<sup>2</sup>

### References

1. Johnström, P., Bergman, L., Varnäs, K., *et al.* Development of rapid multistep carbon-11 radiosynthesis of the myeloperoxidase inhibitor AZD3241 to assess brain exposure by PET microdosing. *Nucl. Med. Biol.* **42(6)**, 555-560 (2015).
2. Stefanova, N., Georgievska, B., Eriksson, H., *et al.* Myeloperoxidase inhibition ameliorates multiple system atrophy-like degeneration in a transgenic mouse model. *Neurotox. Res.* **21(4)**, 393-404 (2012).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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