

Product Data Sheet

Product Name: (rac)-Mitiperstat

Cat. No.: GC78978

Chemical Properties

Cas. No. 1933460-18-4

Formula $C_{15}H_{15}ClN_4OS$

M.Wt 334.82

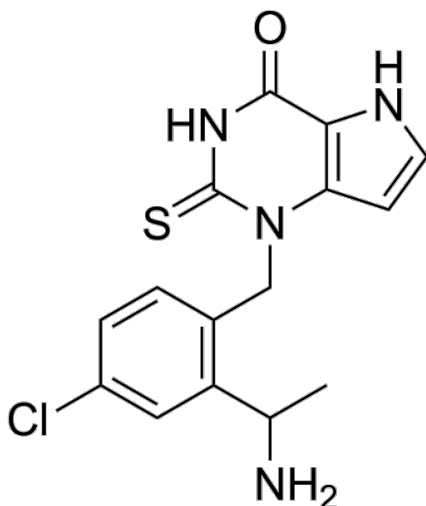
Solubility

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

(rac)-Mitiperstat ((rac)-AZD4831) is the racemic form of Mitiperstat. Mitiperstat (AZD4831) is an effective oral inhibitor of myeloperoxidase (MPO). Mitiperstat inhibits MPO and thyroid peroxidase (TPO) with IC_{50} s of 1.5 nM and 0.69 μ M. Mitiperstat exhibits a weak inhibitory activity against CYP3A4 with an IC_{50} of 6 μ M. Mitiperstat can reduce inflammation and improve microvascular function, and it can be used in studies related to heart failure, preserved or mildly reduced ejection fraction, non-alcoholic fatty liver disease, and chronic obstructive pulmonary disease [1] [2] [3] [4].

In Vitro, (rac)-Mitiperstat is the racemate (racemic mixture) of Mitiperstat, typically encountered as a

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diastereomerically purified form or a synthetic intermediate.

References:

- [1]. Joanna Parkinson, et al. The myeloperoxidase inhibitor mitiperstat (AZD4831) does not prolong the QT interval at expected therapeutic doses. *Pharmacol Res Perspect*. 2024 Apr;12(2):e1184.
- [2]. Lars H Lund, et al. Rationale and design of ENDEAVOR: A sequential phase 2b-3 randomized clinical trial to evaluate the effect of myeloperoxidase inhibition on symptoms and exercise capacity in heart failure with preserved or mildly reduced ejection fraction. *Eur J Heart Fail*. 2023 Sep;25(9):1696-1707.
- [3]. Carolyn S P Lam, et al. Myeloperoxidase Inhibition in Heart Failure With Preserved or Mildly Reduced Ejection Fraction: SATELLITE Trial Results. *J Card Fail*. 2024 Jan;30(1):104-110.
- [4]. Inghardt T, et al., Discovery of AZD4831, a Mechanism-Based Irreversible Inhibitor of Myeloperoxidase, As a Potential Treatment for Heart Failure with Preserved Ejection Fraction. *J Med Chem*. 2022 Sep 8;65(17):11485-11496.

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