

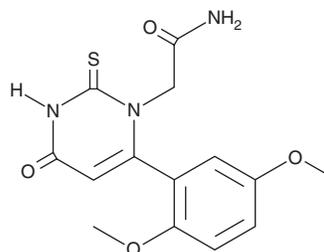
PRODUCT INFORMATION



PF-1355

Item No. 22222

CAS Registry No.: 1435467-38-1
Formal Name: 6-(2,5-dimethoxyphenyl)-3,4-dihydro-4-oxo-2-thioxo-1(2H)-pyrimidineacetamide
Synonym: PF-06281355
MF: C₁₄H₁₅N₃O₄S
FW: 321.4
Purity: ≥98%
UV/Vis.: λ_{max}: 221, 275 nm
Supplied as: A crystalline 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

PF-1355 is supplied as a crystalline solid. A stock solution may be made by dissolving the PF-1355 in the solvent of choice, which should be purged with an inert gas. PF-1355 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PF-1355 in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

PF-1355 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PF-1355 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. PF-1355 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PF-1355 is an irreversible myeloperoxidase (MPO) inhibitor ($K_i = 346.74$ nM in a cell-free assay).¹ It is selective for MPO over thyroid peroxidase (TPO) and over a panel of more than 50 enzymes, receptors, transporters, and ion channels. It inhibits MPO activity in isolated human whole blood with an IC_{50} value of 1.5 μ M. PF-1355 reduces MPO activity in plasma and peritoneal lavage fluid in a mouse model of peritonitis.² It also reduces lung edema, decreases plasma levels of TNF- α , MCP-1/CCL2, MIP-2/CXCL2, and KC/CXCL1, and transiently increases and then reduces neutrophil levels in bronchoalveolar lavage fluid (BALF) in a mouse model of pulmonary immune complex vasculitis when administered at doses of 20 and 100 mg/kg.

References

1. Ruggeri, R.B., Buckbinder, L., Bagley, S.W., et al. Discovery of 2-(6-(5-chloro-2-methoxyphenyl)-4-oxo-2-thioxo-3,4-dihydropyrimidin-1(2H)-yl)acetamide (PF-06282999): A highly selective mechanism-based myeloperoxidase inhibitor for the treatment of cardiovascular diseases. *J. Med. Chem.* **58(21)**, 8513-8523 (2015).
2. Zheng, W., Warner, R., Ruggeri, R., et al. PF-1355, a mechanism-based myeloperoxidase inhibitor, prevents immune complex vasculitis and anti-glomerular basement membrane glomerulonephritis. *J. Pharmacol. Exp. Ther.* **353(2)**, 288-298 (2015).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/28/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM