

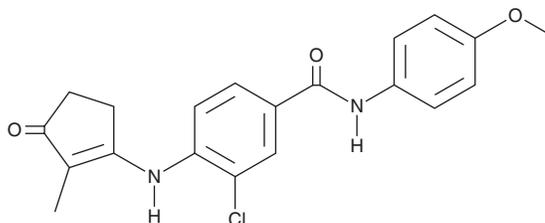
PRODUCT INFORMATION



MS402

Item No. 43481

CAS Registry No.: 1672684-68-2
Formal Name: 3-chloro-N-(4-methoxyphenyl)-4-
[(2-methyl-3-oxo-1-cyclopenten-
1-yl)amino]-benzamide
MF: C₂₀H₁₉ClN₂O₃
FW: 370.8
Purity: ≥98%
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

MS402 is supplied as a solid. A stock solution may be made by dissolving the MS402 in the solvent of choice, which should be purged with an inert gas. MS402 is soluble (≥10 mg/ml) in DMSO.

Description

MS402 is an inhibitor of bromodomain 1 (BD1) of the bromodomain and extraterminal domain family of proteins (BET).¹ It selectively binds to BD1 over BD2 of bromodomain-containing protein 4 (BRD4; K_is = 77 and 718 nM, respectively) and, to a lesser extent, BD1 of BRD3 and BRD2 over BD2 of BRD3 and BRD2 (K_is = 110, 83, 200, and 240 nM, respectively). MS402 is also selective for BET BD1 over the additional bromodomain-containing proteins CREB-binding protein (CBP), p300/CBP-associated factor (PCAF), Brahma-related gene 1 (BRG1), also known as SMARCA4, nucleosome-remodeling factor subunit BPTF, and bromodomain adjacent to zinc finger domain protein 2B (BAZ2B; K_is = 775, 4,120, 6,560, 5,430, and 8,690 nM, respectively). It selectively inhibits the differentiation of isolated mouse CD4⁺ T cells into Th17 cells over Th1 cells, Th2 cells, or regulatory T cells (Tregs) when used at a concentration of 500 nM. MS402 (10 mg/kg twice per week) decreases disease severity and body weight loss in a mouse model of T cell transfer-induced colitis.

Reference

1. Cheung, K., Lu, G., Sharma, R., *et al.* BET N-terminal bromodomain inhibition selectively blocks Th17 cell differentiation and ameliorates colitis in mice. *Proc. Natl. Acad. Sci. USA* **114**(11), 2952-2957 (2017).

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.

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