

PRODUCT INFORMATION



STAT3 Inhibitor 4m

Item No. 37352

CAS Registry No.: 3033049-16-7

Formal Name: (2R,4aS,6aS,12bR,14aS,14bR)-10-hydroxy-2,4a,6a,9,12b,14a-hexamethyl-11-oxo-N-(2-(thiophen-2-yl)ethyl)-1,2,3,4,4a,5,6,6a,11,12b,13,14,14a,14b-tetradecahydronicene-2-carboxamide

Synonym: Signal Transducer and Activator of Transcription 3 Inhibitor 4m

MF: $C_{35}H_{45}NO_3S$

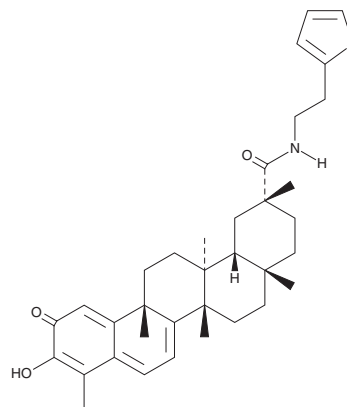
FW: 559.8

Purity: $\geq 98\%$

Supplied as: A crystalline solid

Storage: $-20^{\circ}C$

Stability: ≥ 2 years



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

Laboratory Procedures

STAT3 inhibitor 4m is supplied as a crystalline solid. A stock solution may be made by dissolving the STAT3 inhibitor 4m in the solvent of choice, which should be purged with an inert gas. STAT3 inhibitor 4m is soluble in chloroform.

Description

STAT3 inhibitor 4m is an inhibitor of STAT3 and a derivative of celastrol (Item No. 70950).¹ It inhibits the phosphorylation of STAT3 and decreases levels of the STAT3 target proteins survivin and myeloid cell leukemia 1 (Mcl-1) in HCT116 cells when used at concentrations of 0.75 and 1 μM . STAT3 inhibitor 4m inhibits the proliferation of A549, HCT116, and HepG2 cells (IC_{50} s = 0.93, 0.61, and 1.79 μM , respectively). It induces apoptosis and cell cycle arrest at both the S and G2/M phases in HCT116 cells when used at a concentration of 5 μM . STAT3 inhibitor 4m (1-10 μM) also reduces the viability of human colorectal cancer organoids (CCOs).

Reference

1. Xu, S., Fan, R., Wang, L., *et al.* Synthesis and biological evaluation of celastrol derivatives as potent antitumor agents with STAT3 inhibition. *J. Enzyme Inhib. Med. Chem.* **37**(1), 236-251 (2022).

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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