PRODUCT INFORMATION



HO-3867

Item No. 21581

CAS Registry No.: 1172133-28-6

Formal Name: (3E,5E)-1-[(2,5-dihydro-1-hydroxy-

> 2,2,5,5-tetramethyl-1H-pyrrol-3-yl) methyl]-3,5-bis[(4-fluorophenyl)

methylene]-4-piperidinone

MF: $C_{28}H_{30}F_2N_2O_2$

FW: 464.6 **Purity:** >98%

λ_{max}: 229, 324 nm UV/Vis.: Supplied as: A crystalline solid

-20°C Storage: Stability: ≥4 years

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

Laboratory Procedures

HO-3867 is supplied as a crystalline solid. A stock solution may be made by dissolving the HO-3867 in the solvent of choice, which should be purged with an inert gas. HO-3867 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of HO-3867 in DMSO and DMF is approximately 10 and 20 mg/ml, respectively. HO-3867 is slightly soluble in ethanol.

HO-3867 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, HO-3867 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. HO-3867 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

HO-3867 is an analog of curcumin (Item No. 81025) that selectively suppresses STAT3 phosphorylation, transcription, and DNA binding without affecting the expression of other active STATs.^{1,2} It has been shown to induce apoptosis in BRCA-mutated ovarian cancer cells with minimal toxicity to normal cells.^{2,3} HO-3867 is reported to demonstrate synergistic inhibition of chemotherapy-resistant ovarian xenograft tumors when combined with cisplatin (Item No. 13119).^{1,2}

References

- 1. Selvendiran, K., Ahmed, S., Dayton, A., et al. HO-3867, a curcumin analog, sensitizes cisplatin-resistant ovarian carcinoma, leading to therapeutic synergy through STAT3 inhibition. Cancer Biol. Ther. 12(9), 837-845 (2011).
- 2. Rath, K.S., Naidu, S.K., Lata, P., et al. HO-3867, a safe STAT3 inhibitor, is selectively cytotoxic to ovarian cancer. Cancer Res. 74(8), 2316-2327 (2014).
- Tierney, B.J., McCann, G.A., Cohn, D.E., et al. HO-3867, a STAT3 inhibitor induces apoptosis by inactivation of STAT3 activity in BRCA1-mutated ovarian cancer cells. Cancer. Biol. Ther. 13(9), 766-775 (2012).

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

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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