

Product Data Sheet

Product Name: ZSTK3744

Cat. No.: GC79337

Chemical Properties

Cas. No.

Formula C₂₂H₂₀ClN₇

M.Wt 417.89

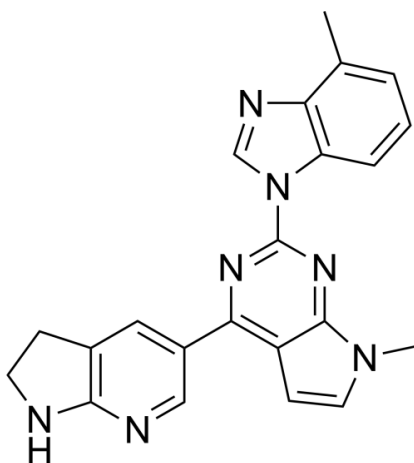
Solubility

Storage Store at 4°C, away from moisture and light

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



HCl

Background

ZSTK3744 is an aryl hydrocarbon receptor (AhR) agonist. ZSTK3744 directly binds to AhR, upregulates the expression of AhR target genes including CYP1A1, CYP1B1 and TIPARP, and mediates cell growth inhibitory activity in triple-negative breast cancer cells. ZSTK3744 induces apoptosis in triple-negative breast cancer cells. ZSTK3744 exhibits anti-tumor activity and can be used in the research of chemoresistant triple-negative breast cancer [1].

In Vivo, ZSTK3744 (2.5-10 mg/kg; i.v.; on days 0, 7, and 14) exerts significant, dose-dependent

Caution: Product has not been fully validated for medical applications. For research use only.

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tumor growth inhibition effects in a Doxorubicin -resistant triple-negative breast cancer (TNBC) mouse xenograft model^[1]. ZSTK3744 (1-5 mg/kg; i.v.; on days 0, 4, and 8) inhibits tumor growth in parental triple-negative breast cancer (TNBC) mouse xenograft models^[1].

In Vitro, ZSTK3744 (0.1-1000 nM; 72 h) (compound 12) potently inhibits the growth of MDA-MB-468 triple-negative breast cancer (TNBC) cells, with an IC₅₀ of 0.87 nM^[1]. ZSTK3744 (0.1-1000 nM; 72 h) potently inhibits the growth of Doxorubicin -resistant MDA-MB-468/AR triple-negative breast cancer (TNBC) cells, with an IC₅₀ of 0.92 nM^[1]. ZSTK3744 (0.1-1000 nM; 72 h) inhibits the growth of Paclitaxel -resistant MDA-MB-468/PR triple-negative breast cancer (TNBC) cells with an IC₅₀ of 23.54 nM^[1]. ZSTK3744 (1-24 h) upregulates the mRNA expression of CYP1A1 and TIPARP in MDA-MB-468 triple-negative breast cancer (TNBC) cells in a time-dependent manner, with significant induction observable as early as 1 hour after treatment^[1]. ZSTK3744 (24 h) induces apoptosis in MDA-MB-468 TNBC cells, and its cell growth inhibitory activity is mediated at least partially via the caspase-dependent apoptotic pathway^[1]. ZSTK3744 (0.1-1000 nM; 72 h) potently inhibits the growth of MDA-MB-453 triple-negative breast cancer (TNBC) cells, with an IC₅₀ of 1.14 nM^[1]. ZSTK3744 (0.1-1000 nM; 72 h) potently inhibits the growth of DU4475 triple-negative breast cancer (TNBC) cells, with an IC₅₀ of less than 0.50 nM^[1]. ZSTK3744 (0.1-1000 nM; 72 h) exerts no significant inhibitory effect on the growth of Hs578T TNBC cells, with an IC₅₀ >500 nM^[1].

References:

[1]. Ohashi T, et al. ZSTK3744, a Novel Aryl Hydrocarbon Receptor Agonist, Exhibits Efficacy against Chemotherapy-Resistant Triple-Negative Breast Cancer. Cancer Res Commun. 2026;6(2):421-436.

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