Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Bentamapimod

Catalog No: tcsc0600

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
848344-36-5

Formula:
$C_{25}H_{23}N_5O_2S$

Pathway:
MAPK/ERK Pathway

Target:
JNK

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
AS 602801

Observed Molecular Weight:
457.55

Product Description

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Bentamapimod (AS 602801) is an ATP-competitive **JNK** inhibitor with **IC_{50}** of 80 nM, 90 nM, and 230 nM for **JNK1**, **JNK2**, and **JNK3**, respectively.

IC50 & Target: IC50: 80 nM (JNK1), 90 nM (JNK2), 230 nM (JNK3)[1]

In Vitro: Bentamapimod (AS 602801) treatment induces cell death and accordingly decreased the number of viable cells in all three cell lines in a dose-dependent manner, suggesting that Bentamapimod (AS 602801) may have selective cytotoxic activity against neoplastic cells. Bentamapimod (AS 602801) exhibits cytotoxicity against both serum-cultured non-stem cancer cells and cancer stem cells derived from human pancreatic cancer, non-small cell lung cancer, ovarian cancer and glioblastoma at concentrations that did not decrease the viability of normal human fibroblasts. Bentamapimod (AS 602801) also inhibits the self-renewal and tumor-initiating capacity of cancer stem cells surviving Bentamapimod (AS 602801) treatment[2].

In Vivo: Treatment of nude mice bearing xenografts biopsied from women with endometriosis (BWE) with 30 mg/kg Bentamapimod (AS 602801) causes 29% regression of lesion. Medroxyprogesterone acetate (MPA) or progesterone (PR) alone did not cause regression of BWE lesions, but combining 10 mg/kg Bentamapimod (AS 602801) with MPA caused 38% lesion regression. In human endometrial organ cultures (from healthy women), treatment with Bentamapimod (AS 602801) or MPA reduced matrix metalloproteinase-3 (MMP-3) release into culture medium. In organ cultures established with BWE, PR or MPA failed to inhibit MMP-3 secretion, whereas AS 602801 alone or MPA + Bentamapimod (AS 602801) suppresses MMP-3 production. In an autologous rat endometriosis model, AS 602801 causes 48% regression of lesions compared to GnRH antagonist Antide (84%). Bentamapimod (AS 602801) reduces inflammatory cytokines in endometriotic lesions, while levels of cytokines in ipsilateral horns are unaffected. Furthermore, Bentamapimod (AS 602801) enhances natural killer cell activity, without apparent negative effects on uterus[3].