

Doramapimod (BIRB796)

Catalog No: tcsc0219



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g



Specifications

CAS No:

285983-48-4

Formula:

$C_{31}H_{37}N_5O_3$

Pathway:

MAPK/ERK Pathway;MAPK/ERK Pathway

Target:

p38 MAPK;Raf

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 100 mg/mL (189.52 mM); H₂O :

Alternative Names:

BIRB 796

Observed Molecular Weight:

527.66

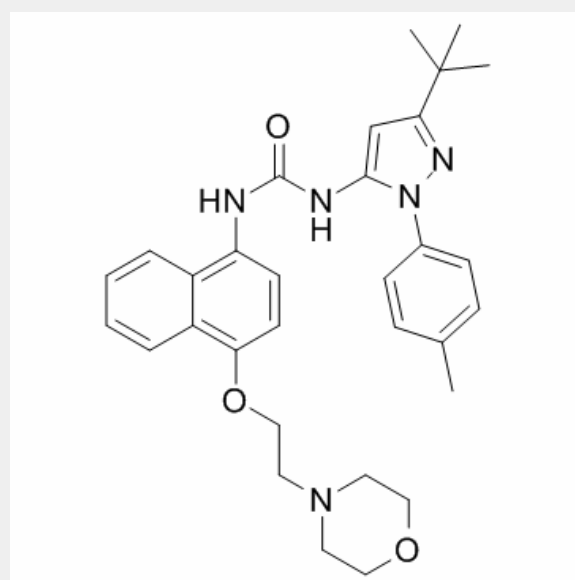
Product Description

Doramapimod is a highly potent **p38 α** inhibitor with an **IC₅₀** of 4 nM, also inhibits **B-Raf** with an **IC₅₀** of 83 nM and Abl with an IC₅₀ of 14.6 μ M.

IC50 & Target: IC50: 4 nM (p38 α), 83 nM (B-Raf)^[1]

In Vitro: Doramapimod (BIRB 796) is a highly potent inhibitor of p38 α , a serine/threonine mitogen activated protein kinase (MAPK) that is usually associated with inflammation because of its role in T-cell proliferation and cytokine production^[1]. Doramapimod (BIRB 796) is a picomolar inhibitor of human p38 MAP kinase^[2]. HEK293 cells are incubated with different concentrations of Doramapimod (BIRB 796) for 30 min or 2 h prior to stimulation with sorbitol (an osmotic shock) and examined the activation of MAPKAP-K2 by measuring its activity. MAPKAP-K2 activation is inhibited in these cells in a time-dependent manner with an apparent IC₅₀ of 30 nM after 30 min or 8 nM after 2 h of preincubation with Doramapimod^[3].

In Vivo: The mean xenograft weigh of Doramapimod (BIRB 796) plus Paclitaxel group (1.14 \pm 0.48 g) is lighter than control, Doramapimod or Paclitaxel group (1.84 \pm 0.61, 1.80 \pm 0.62 and 1.65 \pm 0.29 g) (P[4]. The Doramapimod (BIRB 796) treatment slightly reduces blood pressure (166 \pm 7 mm Hg at week 7; P[5].



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