Purdue Bioscience

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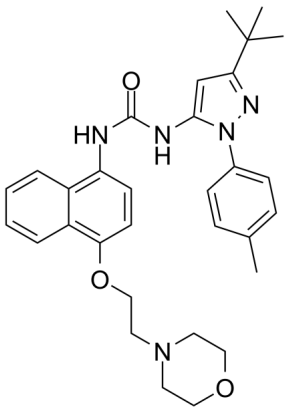
Certificate of Analysis

Catalog Number	BP12608
Product Name	Doramapimod

Physical and Chemical Properties

Synonyms	BIRB 796
CAS No.	285983-48-4
Chemical Formula	C31H37N5O3
Molecular Weight	527.669
Solubility	Ethanol: 26.4 mg/mL (50 mM) DMSO: 52.8 mg/mL (100 mM)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Product Information

Description	Doramapimod is a highly potent inhibitor of p38 MAPK (Kd: 0.1 nM), but weakly inhibits c-RAF, Fyn, Lck, ERK-1, SYK, IKK2, and ZAP-70.
Targets&IC50	p38 MAPK:0.1 nM (Kd, cell free)
In vitro	Doramapimod (BIRB796) is a highly potent inhibitor of p38 MAPK (Kd: 0.1 nM) that blocks TNFα release in LPS-stimulated THP-1 cells (IC50: 18 nM) . BIRB796 also inhibits the activity and the activation of SAPK3/p38gamma. BIRB796 blocks the stress-induced phosphorylation of the scaffold protein SAP97 . BIRB 796 inhibited Hsp27 phosphorylation induced by 17-AAG plus bortezomib, thereby enhancing cytotoxicity. In bone marrow stromal cells (BMSC), BIRB 796 inhibited phosphorylation of p38 MAPK and secretion of IL-6 and vascular endothelial growth factor triggered by either tumour necrosis factor-alpha or tumour growth factor-beta1. BIRB 796 also inhibited IL-6 secretion induced in BMSCs by adherence to MM cells, thereby inhibiting tumour cell proliferation .
In vivo	Systolic blood pressure of untreated dTGRs was 204 mm Hg, but partially reduced after BIRB796 (30 mg/kg per day) treatment (166 mm Hg), whereas Sprague-Dawley rats were normotensive. The beta-myosin heavy chain expression of BIRB796-treated hearts was significantly lower in BIRB796 compared with dTGRs. BIRB796 treatment significantly reduced cardiac fibrosis, connective tissue growth factor, tumor necrosis factor-alpha, interleukin-6, and macrophage infiltration .

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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