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

Pomalidomide

Catalog No: tcsc0165

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Specifications

CAS No:
19171-19-8

Formula:
$C_{13}H_{11}N_3O_4$

Pathway:
Apoptosis

Target:
TNF Receptor

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 100 mg/mL (365.98 mM)

Alternative Names:
CC-4047

Observed Molecular Weight:
273.24

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Product Description

Pomalidomide is a known inhibitor of **TNF-α** release in LPS stimulated human PBMC with **IC_{50}** of 13 nM.

IC50 & Target: IC50: 13 nM (TNF-α, in PBMCs)[1]

In Vitro: Pomalidomide also inhibits Whole Blood TNF-α with IC_{50} of 25 nM[1]. Exposure of lymphoma cells to Pomalidomide (CC-4047) leads to 40% decrease in cell proliferation when compared with vehicle-treated controls. Pomalidomide inhibits by 40% the DNA synthesis of Raji cells (P=0.036)[2]. In both $CD4^+$ and $CD8^+$ cells, Pomalidomide (CC-4047) is the most potent IL-2-elevator, followed by CC-6032 and CC-5013. Pomalidomide is significantly more potent than CC-5013 at elevating IL-2, IL-5, and IL-10, and slightly more potent than CC-5013 at elevating IFN-γ[3].

In Vivo: The administration of Pomalidomide (CC-4047) for two consecutive days before mAb therapy enhances the antitumor activity of Rituximab and doubled the median survival of lymphoma-bearing mice. Statistically, significant differences are observed between animals treated with Rituximab versus Pomalidomide+Rituximab. The median survival time of animals treated with Pomalidomide and Rituximab is longer (median survival, 74 days; 95% CI, 70-78) than those treated with Rituximab monotherapy (median survival, 38 days; 95% CI, 26-50; log-rank test, P=0.002). The administration of CC-5013 or Pomalidomide for two consecutive days leads to a significant increase in the number of circulating NK cells as shown by flow cytometry analysis, in lymphoma-bearing SCID mice[2]. Following a 50 mg/kg PO administration of Pomalidomide (POM) to rats, unbound concentrations in blood reach a C_{max} value of 1100±82 ng/mL at 4.6±2.4 hours, with a concomitant $AUC_{(0-10)}$ value of 6800±2000 ng•hr/mL. Unbound POM in the brain, however, has a C_{max} value of 430±63 ng/mL at 4.1±1.5 hours and an $AUC_{(0-10)}$ value of 2700±740 ng•hr/mL, giving an unbound AUC_{brain} to AUC_{blood} ratio of 0.39±0.03. These values are consistent with excellent blood-brain-barrier penetration. The results obtained in this study are consistent with those seen in a concurrent study looking at whole brain POM content following its oral administration to mice[4].