

# 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 :  $\geq 100$  mg/mL (365.98 mM)

**Alternative Names:**  
CC-4047

**Observed Molecular Weight:**  
273.24

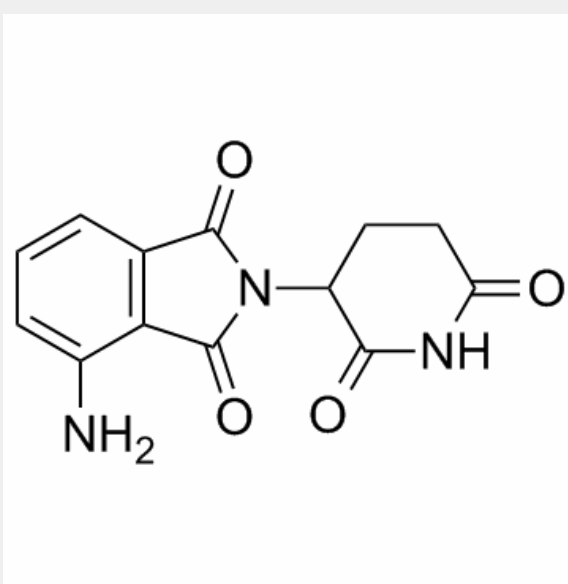
## Product Description

Pomalidomide is a known inhibitor of **TNF- $\alpha$**  release in LPS stimulated human PBMC with **IC<sub>50</sub>** of 13 nM.

IC50 & Target: IC50: 13 nM (TNF- $\alpha$ , in PBMCs)<sup>[1]</sup>

**In Vitro:** Pomalidomide also inhibits Whole Blood TNF- $\alpha$  with IC<sub>50</sub> of 25 nM<sup>[1]</sup>. 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)<sup>[2]</sup>. In both CD4<sup>+</sup> and CD8<sup>+</sup> 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- $\gamma$ <sup>[3]</sup>.

**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<sup>[2]</sup>. Following a 50 mg/kg PO administration of Pomalidomide (POM) to rats, unbound concentrations in blood reach a C<sub>max</sub> value of 1100 $\pm$ 82 ng/mL at 4.6 $\pm$ 2.4 hours, with a concomitant AUC<sub>(0-10)</sub> value of 6800 $\pm$ 2000 ng•hr/mL. Unbound POM in the brain, however, has a C<sub>max</sub> value of 430 $\pm$ 63 ng/mL at 4.1 $\pm$ 1.5 hours and an AUC<sub>(0-10)</sub> value of 2700 $\pm$ 740 ng•hr/mL, giving an unbound AUC<sub>brain</sub> to AUC<sub>blood</sub> ratio of 0.39 $\pm$ 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<sup>[4]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!