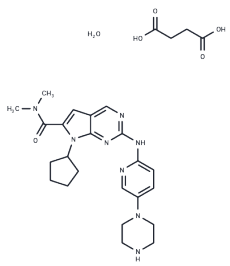
# Data Sheet (Cat.No.T15731)

TargetMol

## Ribociclib succinate hydrate

### Chemical Properties



CAS No. : 1374639-79-8

Formula: C27H38N8O6

Molecular Weight: 570.651

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

### Biological Description

| | |
|---|---|
| Description | Ribociclib succinate hydrate is a highly specific CDK4/6 inhibitor (IC50s: 10 nM and 39 nM, respectively). It also is over 1,000-fold less potent against the cyclin B/CDK1 complex. |
| Targets(IC50) | CDK |
| In vitro | Ribociclib succinate hydrate treatment of two neuroblastoma cell lines (BE2C and IMR5) with demonstrated sensitivity to CDK4/6 inhibition causes a dose-dependent accumulation of cells in the G0/G1 phase of the cell cycle. This G0/G1 arrest becomes significant at Ribociclib concentrations of 100 nM (p=0.007) and 250 nM (p=0.01), respectively. Treatment with Ribociclib obviously inhibits substrate adherent growth relative to the control in 12 of the 17 neuroblastoma cell lines examined (mean IC50=306±68 nM, considering sensitive lines only, where sensitivity is defined as an IC50 of less than 1 μM. Treating a panel of 17 neuroblastoma cell lines with Ribociclib across a four-log dose range (10 to 10,000 nM) [2]. |
| In vivo | Treatment with Ribociclib (LEE011; 200 mg/kg) or vehicle control for 21 days significantly delayed tumor growth in CB17 immunodeficient mice bearing BE2C or NB-1643 (MYCN amplified, sensitive in vitro) xenografts, with both groups showing a marked growth inhibition (p<0.0001); however, tumor growth resumed after the treatment period. This study also included EBC1 (non-amplified, resistant in vitro) xenografts in the treatment regimen. The daily dosing of Ribociclib was well tolerated across all xenograft models, with no observed weight loss or signs of toxicity [2]. |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 19 mg/mL (33.3 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.7524 mL | 8.7619 mL | 17.5239 mL |
| 5 mM | 0.3505 mL | 1.7524 mL | 3.5048 mL |
| 10 mM | 0.1752 mL | 0.8762 mL | 1.7524 mL |
| 50 mM | 0.035 mL | 0.1752 mL | 0.3505 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

VanArsdale T, et al. Molecular Pathways: Targeting the Cyclin D-CDK4/6 Axis for Cancer Treatment. Clin Cancer Res. 2015 Jul 1;21(13):2905-10.

Rader J, et al. Dual CDK4/CDK6 Inhibition Induces Cell-Cycle Arrest and Senescence in Neuroblastoma. Clin Cancer Res. 2013 Nov 15;19(22):6173-82.