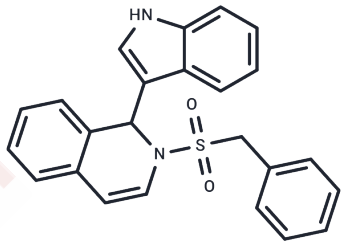
# Data Sheet (Cat.No.T11600)

TargetMol

IBR2

## Chemical Properties



CAS No. : 313526-24-8

Formula: C24H20N2O2S

Molecular Weight: 400.49

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

## Biological Description

| | |
|---|---|
| Description | IBR2 (Isoquinoline) is a potent and specific RAD51 inhibitor known for its ability to suppress RAD51-mediated DNA double-strand break repair. By interfering with RAD51 multimerization, accelerating proteasome-mediated RAD51 protein degradation, inhibiting cancer cell growth, and inducing apoptosis, IBR2 has proved to be an effective compound in these aspects. |
| Targets(IC50) | Apoptosis,DNA/RNA Synthesis |
| In vitro | IBR2 can inhibit the growth of triple-negative human breast cancer cell line MBA-MD-468 with IC50 of 14.8 μM. IBR2 shows interesting RAD51 inhibition activities. RAD51 is rapidly degraded in IBR2-treated cancer cells, and the homologous recombination repair is impaired, subsequently leading to cell death. The IC50 values of the original IBR2 are in the range of 12-20 μM for most tested cancer cell lines[1]. |

## Solubility Information

| | |
|---|---|
| Solubility | DMSO: 250 mg/mL (624.24 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (24.97 mM),Solution.<br>10% DMSO+90% Saline: < 10 mg/mL (24.97 mM),Lower concentrations may be soluble, but exact solubility limit is unknown.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.4969 mL | 12.4847 mL | 24.9694 mL |
| 5 mM | 0.4994 mL | 2.4969 mL | 4.9939 mL |
| 10 mM | 0.2497 mL | 1.2485 mL | 2.4969 mL |
| 50 mM | 0.0499 mL | 0.2497 mL | 0.4994 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zhu J, et al. Synthesis, molecular modeling, and biological evaluation of novel RAD51 inhibitors. Eur J Med Chem. 2015;96:196-208.