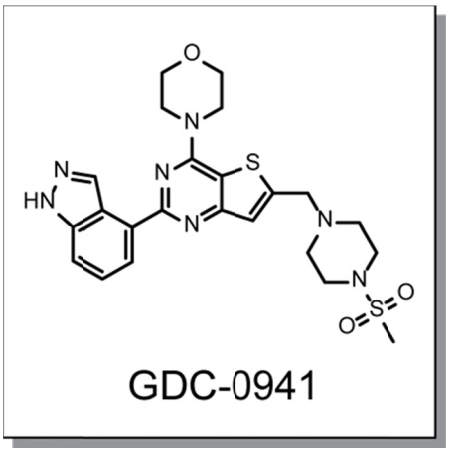
# Product Specification Sheet

**Product Name:** GDC-0941

**Catalog Number:** C4321-5 (powder)
C4321-5s (10mM in DMSO)

**Package Size:** 5 mg




**Technical information:**

| | |
|---|---|
| Chemical Formula: | $C_{23}H_{27}N_7O_3S_2$ |
| CAS #: | 957054-30-7 |
| Molecular Weight: | 513.64 |
| Purity: | >98% |
| Formulation: | White solid |
| Solubility: | Soluble in DMSO up to 100 mM |
| Chemical Name: | 4-(2-(1H-indazol-4-yl)-6-((4-(methylsulfonyl)piperazin-1-yl)methyl)thieno[3,2-d]pyrimidin-4-yl)morpholine |
| Storage: | Store solid powder at 4°C desiccated;<br>Store DMSO solution at -20°C. |

**Handling:**

- For C4321-5 (powder), add 973 µL of DMSO to make 10 mM solution.
- For C4321-5s, before open the vial, centrifuge the vial at 500rpm x 1 min in a 50 mL conical tube to ensure full sample recovery.

**Biological Activity:** GDC-0941 is a highly potent and selective class I PI3K kinase inhibitor under development. Its IC50 values for for PI3K p110 α, β, δ and γ isoforms are 3nM, 33nM, 3nM, 75nM, and for DNA-PK and mTOR are 1230nM and 580nM. It is now in phase I clinical trials targeting several advanced or metastatic solid tumors.

**Reference:**

1. AJ Folkes et al. The identification of 2-(1H-indazol-4-yl)-6-(4-methanesulfonyl-piperazin-1-ylmethyl)-4-morpholin-4-yl-thieno[3,2-d]pyrimidine (GDC-0941) as a potent, selective, orally bioavailable inhibitor of class I PI3 kinase for the treatment of cancer. J. Med. Chem. 2008, 51(18), 5522-32.
2. FI Raynaud et al. Biological properties of potent inhibitors of class I phosphatidylinositide 3-kinases: from PI-103 through PI-540, PI-620 to the oral agent GDC-0941. Mol. Cancer Ther. 2009, 8(7), 1725-38.
3. Zheng L, et al. GDC-0941 sensitizes breast cancer to ABT-737 in vitro and in vivo through promoting the degradation of Mcl-1.Cancer Lett. 2011;309(1):27-36.

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