# Data Sheet

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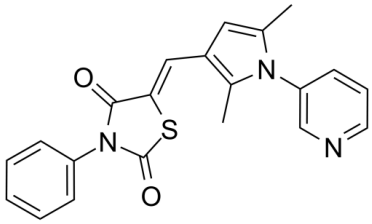
| **Product Name:** | iCRT 14 |
| **Cat. No.:** | CS-3178 |
| **CAS No.:** | 677331-12-3 |
| **Molecular Formula:** | C21H17N3O2S |
| **Molecular Weight:** | 375.44 |
| **Target:** | Wnt |
| **Pathway:** | Stem Cell/Wnt |
| **Solubility:** | DMSO : ≥ 29 mg/mL (77.24 mM) |



## BIOLOGICAL ACTIVITY:

iCRT 14 is a novel potent inhibitor of **β-catenin-responsive transcription (CRT)**, with **$IC_{50}$** of 40.3 nM against Wnt responsive STF16 luciferase. IC50 & Target: IC50: 40.3 nM (Wnt responsive STF16 luciferase)[1] **In Vitro:** iCRT14 can interfere with TCF binding to DNA in addition to its ability to influence TCF-β-cat interaction[1]. iCRT14 (10, 25, 50 μM) effectively inhibits cell proliferation in BT-549 cells in a dose- and time-dependent manner, but still less potent than iCRT3[2]. **In Vivo:** iCRT14 (50 mg/kg, i.p.) markedly decreases CycD1, proliferation of the tumors in HCT116 xenografts[1].

## PROTOCOL (Extracted from published papers and Only for reference)

**Cell Assay:** iCRT 14 is dissolved in DMSO.[2]Cells are seeded at 20,000 cells/well into 96-well plates. After overnight incubation, cells are treated with DMSO or each Wnt inhibitor (iCRT-3, 75 μM; iCRT-5, 200 μM; iCRT-14, 50 μM; IWP-4, 5 μM and XAV-939, 10 μM) for 48 hours. Cell viability is determined using the Cell Titer-Glo luminescent cell viability assay kit. Luminescence is measured using FLUOstar microplate reader. All treatments are performed in triplicate, and each experiment is repeated three times.

## References:

[1]. Gonsalves FC, et al. An RNAi-based chemical genetic screen identifies three small-molecule inhibitors of the Wnt/wingless signaling pathway. Proc Natl Acad Sci USA. 2011 Apr 12;108(15):5954-63.

[2]. Bilir B, et al. Wnt signaling blockage inhibits cell proliferation and migration, and induces apoptosis in triple-negative breast cancer cells. J Transl Med. 2013 Nov 4;11:280.

## CAIndexNames:

2,4-Thiazolidinedione, 5-[[2,5-dimethyl-1-(3-pyridinyl)-1H-pyrrol-3-yl]methylene]-3-phenyl-

## SMILES:

O=C(S/1)N(C2=CC=CC=C2)C(C1=C\C3=C(C)N(C(C)=C3)C4=CN=CC=C4)=O

**Caution: Product has not been fully validated for medical applications. For research use only.**

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