

## **Data Sheet**

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 Product Name
 :
 CHIR-99021

 Cat. No.
 :
 PC-42428

 CAS No.
 :
 252917-06-9

 Molecular Formula
 :
 C22H18Cl2N8

 Molecular Weight
 :
 465.3379

 Target
 :
 GSK-3

**Solubility** : DMSO:  $\geq 5.1 \text{ mg/mL}$  4. Li W, et al. Stem Cells. 2009 Dec;27(12):2992-3000.

## **Biological Activity**

A potent, specific GSK-3 inhibitor with IC50 of 5 nM and 10 nM for GSK3 $\beta$  and GSK3 $\alpha$ , respectively; mimics Wnt signaling in preadipocytes, stabilizes free cytosolic beta-catenin and inhibits adipogenesis by blocking induction of C/EBP $\alpha$  and PPAR $\gamma$ ; potentiates insulin activation of glucose transport and utilization in vitro and in vivo; also widely used for stem cell differentiation and naive stem cell generation.

## References

Ying QL, et al. Nature. 2008 May 22;453(7194):519-23.

Ring DB, et al. Diabetes. 2003 Mar;52(3):588-95.

Bennett CN, et al. J Biol Chem. 2002 Aug 23;277(34):30998-1004.