

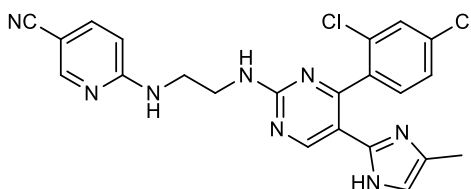
Catalog # 10-1279

CHIR-99021

CAS# 252917-06-9

6-[[2-[[4-(2,4-Dichlorophenyl)-5-(5-methyl-1H-imidazol-2-yl)-2-pyrimidinyl]amino]ethyl]amino]-3-pyridinecarbonitrile

Lot # X104112



Potent and selective inhibitor of glycogen synthase kinase-3 β (GSK3 β , IC₅₀ = 5 nM) and GSK3 α (IC₅₀ = 10 nM)¹. Induces osteoblastogenesis, increases mineralization and inhibits adipogenesis in ST2 cells².

Promotes replication and survival of pancreatic beta cells³.

Enhances differentiation and reduces proliferation of adult human olfactory epithelium neural precursors⁴.

Cell permeable and active *in vivo*.

- 1) Bennett *et al.* (2002), *Regulation of Wnt signaling during adipogenesis*; J. Biol. Chem., **277** 30998
- 2) Bennett *et al.* (2005), *Regulation of osteoblastogenesis and bone mass by Wnt10b*; Proc. Natl. Acad. Sci. USA, **102** 3324
- 3) Mussmann *et al.* (2007), *Inhibition of GSK3 promotes replication and survival of pancreatic beta cells*; J. Biol. Chem., **282** 12030
- 4) Manceur *et al.* (2011), *Inhibition of glycogen synthase kinase-3 enhances the differentiation and reduces the proliferation of adult human olfactory epithelium neural precursors*; Exp. Cell. Res., **317** 2086
- 5) Takaoka *et al.* (2016) *Live imaging of transforming growth factor- β activated kinase 1 activation in Lewis lung carcinoma 3LL cells implanted into syngeneic mice and treated with polyinosinic:polycytidylic acid*; Cancer Sci. **107** 644 [Focus Citation]

PHYSICAL DATA

Molecular Weight:	465.35
Molecular Formula:	C ₂₂ H ₁₈ Cl ₂ N ₈
Purity:	≥98% HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 25 mg/ml with warming)
Physical Description:	Tan solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.