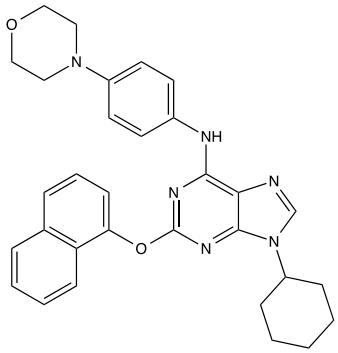
Catalog # 10-4622

Purmorphamine

CAS# 483367-10-8

1-(1-Napthoxy)-6-(4-morpholinoanilino)-9-cyclohexylpurine

Lot # FBS1026



Purmorphamine induces osteogenesis in multipotent mesenchymal progenitor cells *via* activation of hedgehog signaling.[1,2] Activation of hedgehog is achieved *via* direct targeting of Smoothened.[3] Purmorphamine has also been used as part of a "cocktail" of small molecules to reprogram mouse somatic cells into pluripotent stem-like cells[4] and human Astroglial cells into functional neurons[5].

1) Wu *et al*. (2002), *A small molecule with osteogenesis-inducing activity in multipotent mesenchymal progenitor cells*; J.Am.Chem.Soc. **124** 14520

2) Wu *et al*. (2004), *Purmorphamine induces osteogenesis by activation of the hedgehog signaling pathway*; Chem.Biol. **11** 1229

3) Sinha and Chen *et al*. (2006), *Purmorphamine activates the Hedgehog pathway by targeting Smoothened* Nat.Chem.Biol. **2** 29

4) Kang *et al*. (2015), *Reprogramming of mouse somatic cells into pluripotent stem-like cells using a combination of small molecules*; Biomaterials **35** 7336

5) Zhang *et al*. (2015), *Small Molecules Efficiently Reprogram Human Astroglial Cells into Functional Neurons*; Cell Stem Cell **17** 735

PHYSICAL DATA

Molecular Weight:	520.62
Molecular Formula:	$C_{31}H_{32}N_6O_2$
Purity:	>98% by TLC NMR: (Conforms)
Solubility:	DMSO (10 mg/mL)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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