

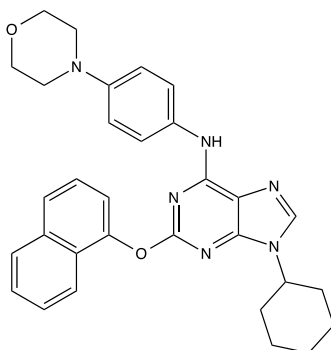
Catalog # 10-4622

Purmorphamine

CAS# 483367-10-8

1-(1-Naphthoxy)-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 Smoothed.³ Purmorphamine has also been used as part of a “cocktail” of small molecules to reprogram mouse somatic cells into pluripotent stem-like cells⁴ and human Astroglial cells into functional neurons⁵.

- 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 Smoothed* 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 ₆ O 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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