

Certificate of Analysis

Product Name: DMH2

Catalog No.: 5580

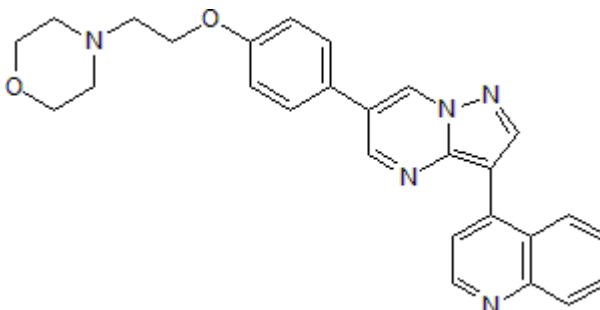
Batch No.: 1

CAS Number: 1206711-14-9

IUPAC Name: 4-[6-[4-[2-(4-Morpholinyl)ethoxy]phenyl]pyrazolo[1,5-a]pyrimidin-3-yl]quinoline

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₂₅N₅O₂
Batch Molecular Weight: 451.52
Physical Appearance: Yellow solid
Solubility: 2eq.HCl to 50 mM
DMSO to 20 mM with gentle warming
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.31 (Dichloromethane:Methanol [9:1])
HPLC: Shows 99.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	71.82	5.58	15.51
Found	72.05	5.61	15.25

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Type I BMP receptor inhibitor (K_i values are <1, 5.4 and 43 nM for ALK6, ALK3 and ALK2, respectively). Exhibits >30-fold selectivity over ALK4, ALK5, BMPR2, AMPK and VEGFR2. Also binds to TGFBR2 ($K_i = 85$ nM). Decreases growth and induces cell death of H1299 non-small cell lung carcinoma cells in vitro. Enhances liver regeneration in vivo.

Physical and Chemical Properties:

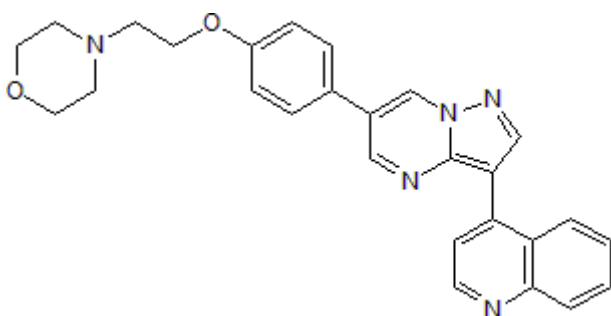
Batch Molecular Formula: $C_{27}H_{25}N_5O_2$

Batch Molecular Weight: 451.52

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

2eq.HCl to 50 mM

DMSO to 20 mM with gentle warming

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Tsugawa et al (2014) Specific activin receptor-like kinase 3 inhibitors enhance liver regeneration. *J.Pharmacol.Exp.Ther.* **351** 549. PMID: 25271257.

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