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# **DATASHEET**

DMH-1

### **Product overview**

Name DMH-1 Cat No HB3110 **Biological action** Inhibitor **Purity** >98%

Description Selective ALK2 inhibitor. Promotes iPSC neurogenesis.

## **Biological Data**

**Biological description** Selective ALK2 inhibitor ( $IC_{50} = 108 \text{ nM}$ ). Blocks BMP signaling. Also promotes human induced

pluripotent stem cell (iPSC) neurogenesis when used in combination with SB 431542. Shows

antitumor activity.

## **Solubility & Handling**

Solubility overview Soluble in DMSO (20mM)

Storage instructions

Storage of solutions Prepare and use solutions on the same day if possible. Store solutions at -20°C for up to one month if

storage is required. Equilibrate to RT and ensure the solution is precipitate free before use.

**Shipping Conditions** 

**Important** 

Stable for ambient temperature shipping. Follow storage instructions on receipt.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not

for human or veterinary use.

#### **Chemical Data**

Chemical name 4-[6-[4-(1-Methylethoxy)phenyl]pyra zolo[1,5-a]pyrimidin-3-yl]-quinoline

Molecular Weight 380.44

Chemical structure

**Molecular Formula**  $C_{24}H_{20}N_4O$ **CAS Number** 1206711-16-1 **PubChem identifier** 50997747

**SMILES** CC(C)OC(C=C3)=CC=C3C(C=N2)=CN1C2=C(C4=CC=NC5=C4C=CC=C5)C=N1

InChiKey JMIFGARJSWXZSH-UHFFFAOYSA-N

## References

DMH1, a novel BMP small molecule inhibitor, increases cardiomyocyte progenitors and promotes cardiac differentiation in mouse embryonic stem cells.

Ao et al (2012) PLoS One 7(7)

**PubMedID** 22848549 DMH1, a highly selective small molecule BMP inhibitor promotes neurogenesis of hiPSCs: comparison of PAX6 and SOX1 expression during neural induction.

Neely et al (2012) ACS Chem Neurosci 3(6) **PubMedID** 22860217

DMH1, a small molecule inhibitor of BMP type i receptors, suppresses growth and invasion of lung cancer.

Hao et al (2014) PLoS One 9(6)

**PubMedID** 24603907