1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** \( C_{24}H_{20}N_4O \)
- **Batch Molecular Weight:** 380.44
- **Physical Appearance:** Yellow solid
- **Solubility:** DMSO to 20 mM
- **Storage:** Store at +4°C

2. ANALYTICAL DATA

- **HPLC:** Shows 99.6% purity
- **\(^1\)H NMR:** Consistent with structure
- **Mass Spectrum:** Consistent with structure
- **Microanalysis:**
  - Carbon Hydrogen Nitrogen
  - Theoretical: 75.77 5.3 14.73
  - Found: 75.4 5.29 14.69
Description:
DMH-1 is a selective inhibitor of bone morphogenic protein (BMP) type-I receptor activin receptor-like kinase 2 (ALK2) receptor (IC₅₀ = 108 nM or 12.6 nM in in vitro kinase assays). DMH-1 exhibits 6- and 19-fold selectivity for ALK-2 over ALK-1 and ALK-3, respectively, and no significant inhibition of AMPK, ALK5, KDR (VEGFR-2) or PDGFRβ receptors. DMH-1 blocks BMP4-induced phosphorylation of Smads 1, 5 and 8 in HEK293 cells. Promotes neurogenesis in human induced pluripotent stem cells (iPSCs) when used in combination with SB 431542 (Cat. No. 1614). DMH-1 suppresses lung cancer cell proliferation, migration, invasion in vitro and reduces...

Physical and Chemical Properties:
Batch Molecular Formula: C₂₈H₂₀N₄O
Batch Molecular Weight: 380.44
Physical Appearance: Yellow solid
Minimum Purity: ≥98%

References: