MU1700

Cat. No.: HY-148246

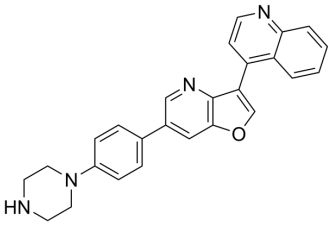
Molecular Formula: $C_{26}H_{22}N_4O$

Molecular Weight: 406.48

Target: TGF-β Receptor

Pathway: TGF-beta/Smad

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

MU1700 is an orally active and potent ALK1/2 inhibitor with IC_{50}s of 13 nM and 6 nM, respectively. MU1700 shows cell membrane permeability and high brain permeability[1].

IC_{50} & Target

ALK2	ALK1	ALK6
6 nM (IC_{50})	13 nM (IC_{50})	41 nM (IC_{50})

In Vitro

MU1700 (0.1-50 μM; 24 h) shows cytotoxic effect at above 2.5 μM in U2OS cells[1].
MU1700 (0-10 μM) inhibits ALK2 catalysed phosphorylation of SMAD1/5/8[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	U2OS cells
Concentration:	0.1-50 μM
Incubation Time:	24 h
Result:	Showed cytotoxic effect above 2.5 μM concentration significantly.

In Vivo

Pharmacokinetic (PK) Profile in Mice (P.O., 20 mg/kg)[1]

Dose	20 mg/kg
Bioavailability	79 %
Cl (ml/min/kg)	30 (IV)
$T_{1/2}$	2.5 h
C_{max} (PO)	3697 nM

C_{brain}/C_{plasma} (4h, 100 mg/kg)	25

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. MU1700 Chemical probe for ALK1 and ALK2 protein kinases

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