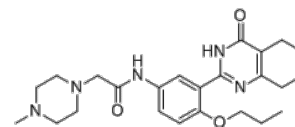


Product Name : TPN171
Cat. No. : PC-49288
CAS No. : 1229018-87-4
Molecular Formula : C₂₄H₃₅N₅O₃
Molecular Weight : 441.576
Target : Phosphodiesterase (PDE)
Solubility : 10 mM in DMSO



Biological Activity

TPN171 (TPN-171) is a highly potent, selective phosphodiesterase type 5 (PDE5) inhibitor with IC₅₀ of 0.62 nM, 32-fold selectivity over PDE6.

TPN171 shows an excellent selectivity over PDE2, 3, 4, 7, 8, 9, and 10 (>16,129-fold), and 1610-fold selectivity over PDE11, which is much more selective than tadalafil (9-fold).

TPN171 (20 mg/kg) demonstrated antihypertensive effect in an acute model of hypertension in spontaneously hypertensive rats (SHR), rapidly and remarkably decreases the blood pressure.

TPN171 also shows the efficacy in pulmonary arterial hypertension (PAH) model comparable to that of sildenafil or bosentan, and its dose (1 mg/kg) is much lower than that of sildenafil (25 mg/kg) or bosentan (100 mg/kg).

References

Zhen Wang, et al. J Med Chem. 2019 May 23;62(10):4979-4990.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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