Product Datasheet

TAK-071

Catalog No. **BP-00047** · CAS **1820812-16-5** · Form **free base** · Physical state **solid** · Color **white to off-white** · Version **1.0** · Revision **2026-09-03**

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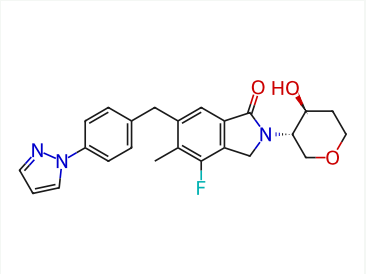
Target	Research area
mAChR	**Neurological Disease**

Molecular formula	$C_{24}H_{24}FN_3O_3$
Molecular weight	**421.4641**

STRUCTURE



DESCRIPTION

TAK-071 is a novel, potent and highly selective muscarinic acetylcholine receptor 1 (M1R) positive allosteric modulator. EC50 of TAK-071 M1R agonist activities is 520 nM .

BIOLOGICAL ACTIVITY

In Vivo

TAK-071 increase hippocampal inositol monophosphate production through M1R activation and improved DB00747 -induced cognitive deficits in rats at 0.3 mg/kg.

TAK-071 also induce diarrhea at 10 mg/kg in rats.

Combining sub-effective doses of TAK-071 (3 mg/kg) with an acetylcholinesterase inhibitor significantly ameliorates DB00747-induced cognitive deficits in rats.

SOLUBILITY

Soluble in DMSO

REFERENCES

[1]. Sako, Yuu et al. “TAK-071, a novel M1 positive allosteric modulator with low cooperativity, improves cognitive function in rodents with few cholinergic side effects.” Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology vol. 44,5 (2019): 950-960. doi:10.1038/s41386-018-0168-8