

Product Datasheet

TAK-653

Catalog No. **BP-01876** · CAS **1358751-06-0** · Form **free base** · Physical state **solid** · Color **White to yellow** · Version **1.0** · Revision **2026-09-07**

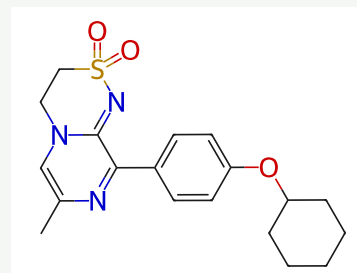
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Target iGluR; Lipoxygenase	Research area Neurological Disease
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Molecular formula **C₁₉H₂₃N₃O₃S**

Molecular weight **373.4690**

STRUCTURE



DESCRIPTION

TAK-653 is an AMPA receptor potentiator with minimal agonistic activity.

BIOLOGICAL ACTIVITY

TAK-653, an AMPA receptor potentiator with minimal agonistic activity, produces an antidepressant-like effect with a favorable safety profile in rats.

In Vivo

Osavampator (0.03-0.3 mg/kg, p.o., single dose) enhances visual learning and memory in normal rats.

Osavampator (0.3 mg/kg, p.o., single dose) enhances sustained attention in the poor performing rats.

Osavampator (0.06 mg/kg, p.o., single dose) improves working memory in monkeys.

Osavampator (1 mg/kg, p.o., single dose) produces antidepressant-like effects in the rat RSBM (reduction of submissive behavior model).

SOLUBILITY

Soluble in DMSO ≥ 12.5 mg/mL

REFERENCES

- [1]. Hara H, et al. TAK-653, an AMPA receptor potentiator with minimal agonistic activity, produces an antidepressant-like effect with a favorable safety profile in rats. *Pharmacol Biochem Behav.* 2021 Dec;211:173289.
- [2]. Suzuki A, et al. Strictly regulated agonist-dependent activation of AMPA-R is the key characteristic of TAK-653 for robust synaptic responses and cognitive improvement [J]. *Scientific Reports*, 2021, 11(1): 14532.
- [3]. Hara H, et al. TAK-653, an AMPA receptor potentiator with minimal agonistic activity, produces an antidepressant-like effect with a favorable safety profile in rats. *Pharmacol Biochem Behav.* 2021 Dec;211:173289.

Tel: +86 20 31130026 · Fax: +86 20 36822386 · tech@biochemprobe.com · www.biochemprobe.com

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