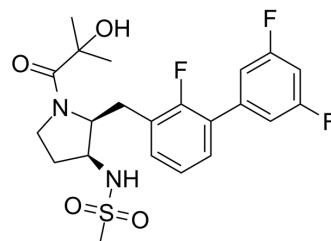


Firazorexton

| | | | |
|---------------------------|--|-------|----------|
| Cat. No.: | HY-137440 | | |
| CAS No.: | 2274802-95-6 | | |
| Molecular Formula: | C ₂₂ H ₂₅ F ₃ N ₂ O ₄ S | | |
| Molecular Weight: | 470.51 | | |
| Target: | Orexin Receptor (OX Receptor) | | |
| Pathway: | GPCR/G Protein; Neuronal Signaling | | |
| Storage: | Powder | -20°C | 3 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (531.34 mM; Need ultrasonic)

| Concentration | Solvent | Mass | | |
|---------------------------|---------|-----------|------------|------------|
| | | 1 mg | 5 mg | 10 mg |
| Preparing Stock Solutions | 1 mM | 2.1254 mL | 10.6268 mL | 21.2535 mL |
| | 5 mM | 0.4251 mL | 2.1254 mL | 4.2507 mL |
| | 10 mM | 0.2125 mL | 1.0627 mL | 2.1254 mL |

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

| | |
|-------------------------------------|--|
| Description | Firazorexton (TAK-994 free base) is an orally active, brain-permeable orexin type 2 receptor (OX2R) agonist. Firazorexton has the potential to improve narcolepsy like symptoms ^{[1][2]} . |
| IC₅₀ & Target | OX ₂ Receptor |
| In Vitro | Firazorexton activates recombinant human OX2R (EC50 value was 19 nM) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |
| In Vivo | Firazorexton (1, 3, 10, 30 mg/kg, oral) exerts a wakeful effect in mice by activating OX2R ^[1] . Firazorexton (10 mg/kg oral) significantly increases wakefulness time in monkeys, but does not increase OX-A levels in pooled cerebrospinal fluid (CSF) ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

REFERENCES

[1]. Ishikawa T, et al. TAK-994, a Novel Orally Available Brain-Penetrant Orexin 2 Receptor-Selective Agonist, Suppresses Fragmentation of Wakefulness and Cataplexy-Like Episodes in Mouse Models of Narcolepsy. *J Pharmacol Exp Ther.* 2023 Jun;385(3):193-204.

[2]. Yamada R, et al. The orexin receptor 2 (OX2R)-selective agonist TAK-994 increases wakefulness without affecting cerebrospinal fluid orexin levels in cynomolgus monkeys. *Pharmacol Biochem Behav.* 2024 Jan;234:173690.

Caution: Product has not been fully validated for medical applications. For research use only.

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