Nalfurafine

Cat. No.: HY-12745
CAS No.: 152657-84-6
Molecular Formula: C₂₈H₃₂N₂O₅
Molecular Weight: 476.56
Target: Opioid Receptor
Pathway: GPCR/G Protein; Neuronal Signaling
Storage: Please store the product under the recommended conditions in the COA.

BIOLOGICAL ACTIVITY

Description
Nalfurafine (TRK-820) is a potent selective and orally active G protein-biased kappa opioid receptor (KOR)-agonist with high translational potential[1]. Nalfurafine (TRK-820) enhances the therapeutic potential of MOR-targeting analgesics, has the potential for uremic pruritis treatment[2].

IC₅₀ & Target
IC₅₀: kappa opioid receptor (KOR)[1]

In Vivo
Nalfurafine (subcutaneous injection; 0.015 mg/kg) combines with EOM-salvinorin-B produces spinal antinociception equivalent to 5 mg/kg, it also enhances the supraspinal analgesic effect of 5 mg/kg morphine[1]. Nalfurafine (subcutaneous injection; 4 μg/kg) causes a dose-dependent increase of the inhibition of the acetic acid-induced abdominal constriction, and the inhibition of the abdominal constriction reaches its peak 30 min after injection, gradually declined and returned to the preinjection level 4 hr after[2].

Animal Model: Male and Female C57BL/6J mice[1]
Dosage: 0.015 mg/kg
Administration: Subcutaneous injection
Result: Had the potential for enhancing the therapeutic potential of MOR-targeting analgesics, such as morphine.

CUSTOMER VALIDATION

- Physiology, Pharmacology & Neuroscience, School of Medicine, West Virginia University. 2019 Aug.

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REFERENCES